

Central Lincolnshire Joint Planning Unit
**Green Infrastructure Study
for Central Lincolnshire**
Volume 1- Strategy





Central Lincolnshire Joint Planning Unit

**Green Infrastructure Study
for Central Lincolnshire**

Volume 1- Strategy

Approved

A handwritten signature in black ink, appearing to read 'D. Watkins', enclosed within a circular flourish.

Dominic Watkins

Position

Director

Date

20th December 2011

Revision

Final

CONTENTS

Acknowledgements

Executive Summary

1.0	SETTING THE SCENE	1
1.1	Background	1
1.2	Need for the Study	2
1.3	Study Area and Context	3
1.4	Green Infrastructure Concept	3
1.5	Overview of Approach	8
1.6	Study Outputs	8
2.0	CENTRAL LINCOLNSHIRE'S GREEN INFRASTRUCTURE	10
2.1	General	10
2.2	Overview of Green Infrastructure Assets	10
2.3	Green Infrastructure Needs and Opportunities	13
3.0	GREEN INFRASTRUCTURE VISION AND OBJECTIVES	16
3.1	General	16
3.2	Vision and Objectives	16
3.3	The Proposed Green Infrastructure Network	17
4.0	GREEN INFRASTRUCTURE DELIVERY FRAMEWORK	29
4.1	General	29
4.2	Green Infrastructure Delivery Principles	29
4.3	Strategic Green Infrastructure Initiatives and Projects	30
4.4	Governance and Delivery Co-ordination Arrangements	44
4.5	Potential Funding Sources	46
4.6	Spatial Planning and Development Management	50
4.7	Management and Governance Options	57
4.8	Further Work	59
4.9	Outline Action Plan	60
4.10	Monitoring Arrangements	70

APPENDICES

A1.	Study Methodology
A2.	Private Gardens, Street Trees and Green Roof Research
A3.	Policy Context Summary
A4.	Additional Green Infrastructure Funding Sources
A5.	LDF Green Infrastructure Policy Advice
A6.	Review of Green Infrastructure Management and Governance Options
A7.	Green Infrastructure Management and Governance Case Studies

FIGURES

- 1.1a Central Lincolnshire – Location and Context**
- 1.1b Study Areas**
- 1.2 Study Process**
- 1.3 Existing Green Infrastructure Assets in Central Lincolnshire**
- 1.4a Green Infrastructure Network Concept Plan – Central Lincolnshire**
- 1.4b Green Infrastructure Network Concept Plan – Gainsborough Area**
- 1.4c Green Infrastructure Network Concept Plan – Lincoln Area**
- 1.4d Green Infrastructure Network Concept Plan – Sleaford Area**
- 1.5a Strategic Green Infrastructure Initiatives & Projects – Central Lincolnshire**
- 1.5b Strategic Green Infrastructure Initiatives & Projects – Gainsborough Area**
- 1.5c Strategic Green Infrastructure Initiatives & Projects – Lincoln Area**
- 1.5d Strategic Green Infrastructure Initiatives & Projects – Sleaford Area**

Acknowledgements

CBA would like to acknowledge the support, guidance and information provided by the Central Lincolnshire Green Infrastructure Steering Group and Project Management Group in the preparation of this Study.

Steering Group:

- Caroline Steel (Head of Conservation, Lincolnshire Wildlife Trust)
- David Carter (Facilities Project Manager, Lincolnshire Sports Partnership)
- Andy Bailey (Planning & Corporate Services Technical Specialist, Environment Agency)
- Ryan Bavin (Conservation & Planning Adviser, Natural England)
- Mike Braithwaite (Head of Central Lincolnshire Joint Planning Unit)
- Alan Freeman (Head of Planning, Lincolnshire County Council)
- Jodie Davis (Climate Adaptation Project Officer, Lincolnshire County Council)
- Martin Hollingsworth (Senior Highway Officer, Lincolnshire County Council)
- Alan Gray (Economic Development Manager, North Kesteven District Council)
- Mike Lock (Client Officer, North Kesteven District Council)
- Sarah Attrill (Witham Valley Country Park Project Officer, North Kesteven District Council)
- Carol Slingsby (Environment Officer, West Lindsey District Council)

Project Management Group:

- Gill Wilson (GI Study Project Manager/Team Leader Development Planning, City of Lincoln Council)
- Brooke Smith (GI Study Project Manager/Policy Planning Officer, Central Lincolnshire Joint Planning Unit)
- Luke Fleming (Team Leader, Central Lincolnshire Joint Planning Unit)
- Brendan Gallagher (Principal Planning officer, Lincolnshire County Council)
- Sarah Rayney (Planning Technician, Central Lincolnshire Joint Planning Unit)
- Katherine Mills (Principal Development Officer, Lincolnshire Research Observatory, Lincolnshire County Council) replaced by Adam Peacock.

We would also like to offer our thanks to other local stakeholder organisations who contributed additional data and information for the Study (see **Volume 2** for details)

The CBA Team comprised:

- Dominic Watkins (Project Director)
- Chloé Cova (Project Manager)
- Emma Clarke
- Richard Bickers
- Sarah de Vos

Chris Blandford Associates
December 2011

Executive Summary

Background

In April 2011, the Central Lincolnshire Joint Planning Unit commissioned environmental planning consultants Chris Blandford Associates to undertake a Green Infrastructure Study for Central Lincolnshire. The Study will provide a key part of the evidence base to underpin the development of spatial planning policy through the Central Lincolnshire Local Development Framework.

The Study aims to provide a strategic framework for guiding the planning and delivery of Green Infrastructure across Central Lincolnshire. It provides a broad assessment of the quantity, quality and accessibility of Central Lincolnshire's Green Infrastructure in 2011, and identifies opportunities for addressing deficiencies. The Study sets out the consultant's independent recommendations on priorities for Green Infrastructure delivery to support growth and development in Central Lincolnshire over the next 15-20 years. It is not a statement of Council policy.

The findings of the Study are presented as two volumes:

- Volume 1 - Green Infrastructure Strategy
- Volume 2 - Green Infrastructure Audit and Assessment

The Study paints a picture of the future needs and opportunities for Green Infrastructure seen against the backdrop of a changing policy context, reflected in part by the Coalition Government's Natural Environment White Paper and local aspirations to deliver eco development in Central Lincolnshire. The Study will therefore require regular review to ensure that it remains a valuable and relevant source of information to support future planning policy work and local delivery of Green Infrastructure.

What is Green Infrastructure?

'Green Infrastructure is a network of multi-functional greenspace, both new and existing, both rural and urban, which supports natural and ecological processes and is integral to the health and quality of life of sustainable communities'.

'Greenspace' is defined as comprising the following types of spaces: allotments, community gardens and urban farms; amenity greenspaces (including green roofs); cemeteries, churchyards and disused burial grounds; green (and blue) corridors; natural and semi-natural greenspaces; and parks and gardens. In addition to these greenspaces, GI assets also include domestic gardens and street trees; agricultural land; historic environment assets; and floodplains.

Green Infrastructure can comprise public and private assets, with and without public access. These assets sit within, and contribute to, high quality natural and built environments in urban and rural locations that are required to support sustainable communities.

Green Infrastructure supports important ecosystem services and benefits integral to the health and quality of life for Central Lincolnshire's communities. This includes, for example, flood attenuation and water resource management, carbon storage, countering the heat island effect of urban areas, providing opportunities for access to nature and local food production.

Central Lincolnshire's Green Infrastructure comprises both greenspaces within urban areas, such as Hartsholme Country Park and historic commons in Lincoln, and larger greenspaces in the countryside such as Laughton Wood. Major green corridors, such as the Witham Valley and Trent Valley are particularly significant GI assets within Central Lincolnshire.

Green Infrastructure is a holistic approach to planning and managing the natural environment that acknowledges the multiple benefits and vital functions it provides for the economy, wildlife, local people, communities and cultural heritage assets. Investment in the provision of new and enhanced Green Infrastructure is therefore an essential part of planning for Central Lincolnshire's future.

Stakeholder Consultation

Each stage of the Study has been informed by consultation with over 100 local stakeholders involved in planning, managing and delivering Green Infrastructure and sustainable development across Central Lincolnshire. The study process involved three key stages of work:

- Stage 1 – Audit of Green Infrastructure Assets & Stakeholder Workshop.
- Stage 2 – Assessment of Green Infrastructure Needs/Opportunities & Stakeholder Consultation.
- Stage 3 – Preparation of Strategy & Stakeholder Consultation.

Green Infrastructure Audit and Assessment

The proposed Green Infrastructure Strategy is supported by a comprehensive baseline audit and assessment of Central Lincolnshire's existing Green Infrastructure assets. The audit brings together a wide range of spatial data to map the extent and distribution of Central Lincolnshire's Green Infrastructure assets under the following broad themes:

- Ecosystem Services
- Biodiversity
- Landscape and Townscape Character
- Historic Environment
- Access and Recreation
- Strategic Greenspace
- Existing Green Infrastructure Initiatives
- Social and Economic Character
- Growth Areas – Issues and Options

Based on the audit's findings, additional research and stakeholder consultation, the key needs and opportunities for provision of Green Infrastructure in Central Lincolnshire are examined under the following Green Infrastructure functions:

- Wildlife Habitat Provision
- Landscape/Townscape Setting and Historic Environment
- Sustainable Access, Recreation and Movement
- Sustainable Local Energy and Food Production
- Sustainable Resource Management and Climate Change Adaptation

It is intended that the data, maps and analysis will form a valuable evidence base for informing the policy documents that make up the Central Lincolnshire Local Development Framework.

The Green Infrastructure Strategy

The overall objective is to improve and provide new Green Infrastructure in Central Lincolnshire by enhancing, developing and providing a multi-functional network of greenspaces, parks, rivers and other corridors within and around settlements that connect them to each other and the wider countryside, improving access, environmental quality and biodiversity. This is supported by the following sub-objectives:

- To safeguard the supply of ecosystem services in Central Lincolnshire on which human prosperity and well-being depend.
- To promote a landscape-scale approach to reducing further loss and fragmentation of wildlife habitats in Central Lincolnshire, by working to achieve more, bigger, better and inter-connected areas for wildlife.
- To protect and enhance the natural assets and historic assets (and their settings) that underpin the landscape/townscape character of Central Lincolnshire, ensuring that these assets continue to contribute to local distinctiveness.
- To promote opportunities for sustainable access, recreation and movement to encourage healthy lifestyles and wellbeing for communities in Central Lincolnshire.

- To ensure that greenspaces are designed and managed to incorporate a range of sports and recreation facilities.
- To increase the quality, accessibility and use of natural greenspace and other Green Infrastructure assets by local communities in Central Lincolnshire.
- To enhance rights of way and cycling networks across Central Lincolnshire to encourage a modal shift to walking and cycling.
- To promote opportunities for sustainable local energy and food production in Central Lincolnshire to contribute to mitigating climate change by lowering the area's carbon footprint.
- To adapt to and mitigate climate change by enabling Central Lincolnshire to be more resilient to flooding (thus reducing flood risk), drought and higher urban temperatures.
- To ensure that masterplanning of new development providing for growth around Lincoln, Gainsborough and Sleaford meets eco-development standards for Green Infrastructure provision and biodiversity.
- To ensure that new development in Central Lincolnshire is well designed and constructed to high environmental sustainability standards.
- To provide a quality environment for local communities and businesses in Central Lincolnshire, attracting and retaining inward investment.
- To realise opportunities for new businesses, skills and jobs related to Green Infrastructure management and green technologies in Central Lincolnshire.

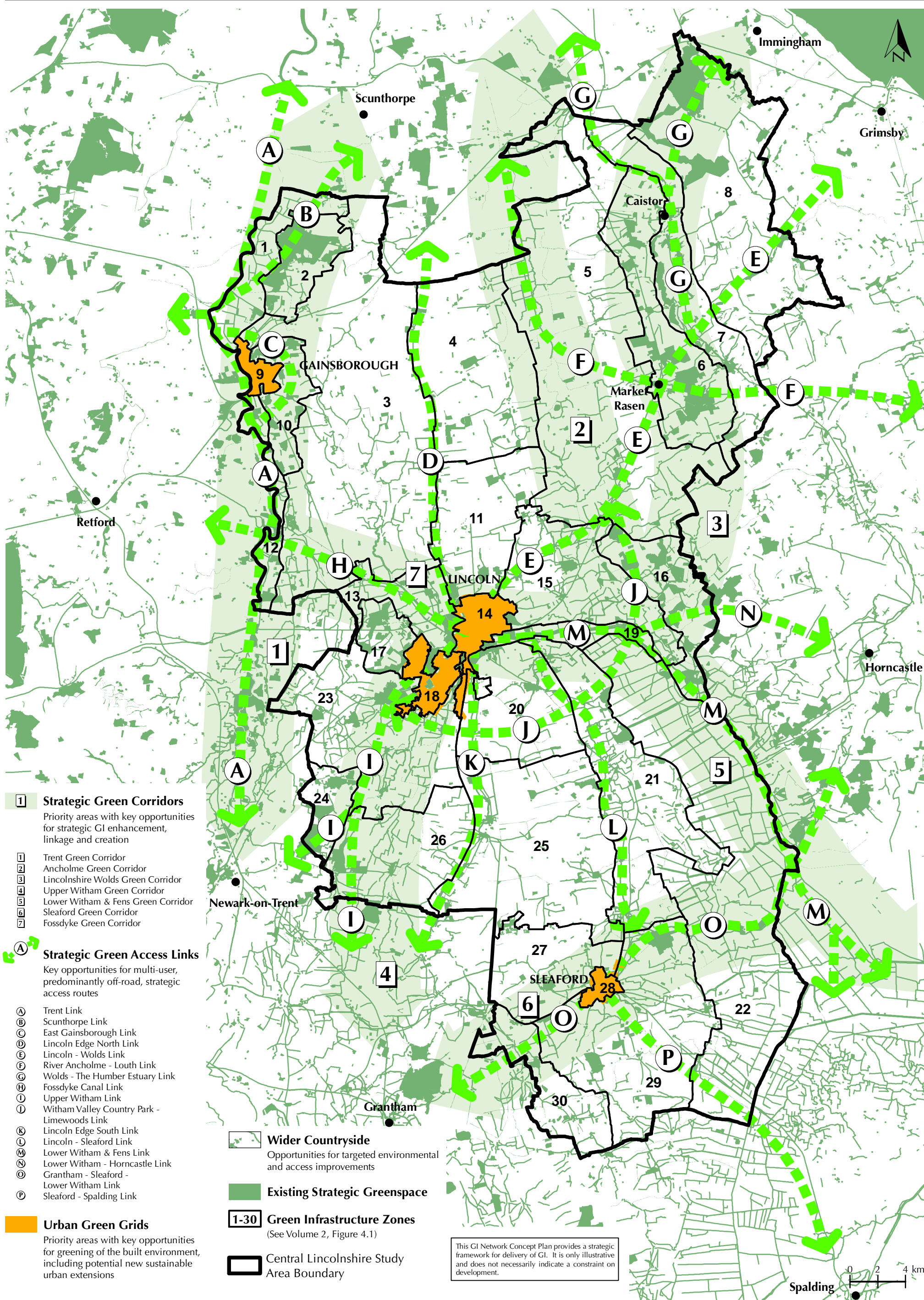
The Green Infrastructure Network

The Study sets out a proposed Green Infrastructure Network for Central Lincolnshire as illustrated on the concept plan (see **Figure 1.4a**). The Green Infrastructure Network encompasses a range of Green Infrastructure types, functions, locations, sizes and levels of accessibility and use, and operates at every spatial scale and in all geographic areas within the area, both rural and urban. However, the proposed Green Infrastructure Network identifies locations where targeting investment in Green Infrastructure is most likely to deliver multiple benefits across a range of key environmental, social and economic policy areas. The main priorities are considered to be:

- To focus investment in Green Infrastructure provision and management to address current deficits of provision/needs identified by the Study.
- To meet the needs of communities in Central Lincolnshire who are likely to experience major growth-related pressures over the next 15-20 years.
- To conserve and manage existing valuable Green Infrastructure assets that are under current or future pressure – including in particular core biodiversity areas, river valleys/wetlands and accessible natural greenspace.

In response to the above, the proposed Green Infrastructure Network defines specific areas within which it is recommended that investment in new and enhanced GI provision be prioritised. The priority areas for action were identified through an interpretation of the interplay between broad patterns and opportunities arising from the analysis of the existing Green Infrastructure assets, particularly in relation to objectives for developing wildlife and access networks. These provide the context for development of strategic Green Infrastructure initiatives and projects that would provide, in many cases, multiple functions and benefits to meet a range of social, economic and environmental needs.

A network of **Strategic Green Corridors**, priority areas with key opportunities for strategic Green Infrastructure enhancement, linkage and creation, provide the backbone of the Green Infrastructure Network. They are broadly defined, landscape-scale corridors comprising a mosaic of land uses, natural features and habitats, built heritage, archaeological resources and settlements, and are intended to become fully multi-functional zones with the ability or potential to deliver a wide range of economic, environmental and social benefits. The Strategic Green Corridors include core areas of designated natural and semi-natural wildlife habitats, and provide opportunities for restoring and re-creating habitats outside of core areas, and provision of wildlife corridors and stepping stones to connect existing and new habitats. These Corridors are significant Green Infrastructure assets for Central Lincolnshire, and also provide key strategic linkages at the District and Sub-regional level with Green Infrastructure networks in adjoining areas. The following Strategic Green Corridors are proposed:



- 1: Trent Green Corridor.
- 2: Ancholme Green Corridor.
- 3: Lincolnshire Wolds Green Corridor.
- 4: Upper Witham Green Corridor.
- 5: Lower Witham & Fens Green Corridor.
- 6: Sleaford Green Corridor.
- 7: Fossdyke Green Corridor.

Within and connecting the Strategic Green Corridors, a network of **Strategic Green Access Links** are intended to provide multi-user, predominantly off-road, strategic access routes for pedestrians and cyclists, linking and integrating residential and business communities across the area to key services, leisure destinations and greenspaces. The proposed Strategic Green Access Links are as follows:

- A: Trent Link.
- B: Scunthorpe Link.
- C: East Gainsborough Link.
- D: Lincoln Edge North Link.
- E: Lincoln – Wolds Links.
- F: River Ancholme – Louth Link.
- G: Wolds – The Humber Estuary Link.
- H: Fossdyke Canal Link.
- I: Upper Witham Link.
- J: Witham Valley Country Park – Limewoods Link.
- K: Lincoln Edge South Link.
- L: Lincoln – Sleaford Link.
- M: Lower Witham & Fens Link.
- N: Lower Witham – Horncastle Link.
- O: Grantham – Sleaford – Lower Witham Link.
- P: Sleaford – Spalding Link.

With investment, the Strategic Green Access Links have the potential to link with public transport services to provide an integrated sustainable movement network for Central Lincolnshire that will help reduce reliance on car-use. While the Strategic Green Access Links have the primary function of providing access and recreational route linkages, they also offer opportunities as wildlife corridors to provide biodiversity benefits.

Urban Green Grids are proposed for Gainsborough, Lincoln and Sleaford. These are priority areas with key opportunities for greening of the built environment, including potential new sustainable urban extensions. The Urban Green Grids comprise multifunctional networks of green (and blue) links and spaces threading through the built environment, weaving together areas where people live and work with public transport networks and the wider countryside. The Urban Green Grids provide urban communities with green areas for recreation and access to nature, a sense of place, education opportunities and help to contribute to sustainable travel by providing safe routes for walking and cycling. Street trees and greenspace help counter the ‘heat island effect’ of urban areas by providing shade to regulate the micro-climate, and domestic gardens and green roofs/walls provide linkages for wildlife through the built-up areas. With investment and appropriate management, the urban green grids would support a range of benefits for the urban communities.

While the proposed Green Infrastructure Network for Central Lincolnshire gives particular emphasis to the spatial priorities discussed above, investment in Green Infrastructure provision within other areas that may also have the potential to deliver benefits should be considered where appropriate. Beyond the strategic corridors, opportunities for targeted environmental and access improvements in the **wider countryside** should be considered to strengthen the multi-functionality of the countryside as part of the overall Green Infrastructure Network. These improvements would complement and support the priority areas for investment within the Green Infrastructure Network, by focusing environmental land management schemes on addressing the needs and opportunities identified in the Study.

The Study also describes the proposed Green Infrastructure Network in more detail in and around the **Growth Areas** of Gainsborough, Lincoln and Sleaford in the context of potential directions of growth.

The Green Infrastructure Delivery Framework

The Strategy recommends that priority is given to delivering actions for enhancing, extending and connecting the existing network of greenspaces within the areas identified on the proposed Green Infrastructure Network. Based on the analysis of needs and opportunities for enhanced provision of particular elements of Green Infrastructure, a long-list of **Strategic Green Infrastructure Initiatives/Projects** are suggested as a starting point to support the sustainable growth of Central Lincolnshire over the next 15-20 years. These initiatives/projects seek to maximise the multifunctional nature of the Green Infrastructure Network as a whole, and in combination would deliver the greatest Green Infrastructure benefits for Central Lincolnshire. These are:

- Witham Valley Country Park Project
- Humberhead Levels Wetland Initiative
- Life on the Verge Project
- Lincolnshire Wolds Chalk Streams Project
- Lincolnshire Limewoods Project
- Trent Vale Landscape Initiative
- Witham Peatlands Wetland Initiative
- Coversand Heathlands Initiative
- Lincolnshire Wolds AONB Management Plan Initiatives
- Central Lincolnshire Waterways Initiative
- Lincolnshire Flood Risk and Drainage Management Framework Initiative
- Central Lincolnshire Sports and Play Initiative
- Central Lincolnshire Community Renewable Energy Infrastructure Initiative
- Central Lincolnshire Local Food Production Initiative
- Central Lincolnshire Ecological Network Strategy
- Strategic Green Access Links/Greenways Network Initiative
- Gainsborough Green Grid Initiative
- Lincoln Green Grid Initiative
- Sleaford Green Grid Initiative

Outline Action Plans are provided that set out suggested priorities for delivery of the above initiatives/projects and the GI Study's other recommended actions as outlined below.

Effective strategic governance, leadership and co-ordination at the Central Lincolnshire level will be required to plan, manage and deliver the proposed Green Infrastructure Network across administrative boundaries and in the context of the wide range of different stakeholders. This is particularly important as there is currently no dedicated funding stream for Green Infrastructure. A long-term approach is also necessary as investment in new and enhanced Green Infrastructure provision is likely to be delivered incrementally, facilitated by, and in step with, major development. With regards to **Governance and Delivery Co-ordination Arrangements**, the Study recommends that the existing Central Lincolnshire Green Infrastructure Steering Group should continue to provide strategic governance and leadership for Green Infrastructure delivery, supported by a proposed Central Lincolnshire Green Infrastructure Strategy Implementation Co-ordinator. The establishment of a Green Infrastructure Stakeholder Forum is also proposed to build public-private sector partnerships for the delivery of Green Infrastructure funded through developer contributions and local businesses.

The Study identifies a variety of **Potential Funding Sources** to support investment in the delivery of the proposed Green Infrastructure Network for Central Lincolnshire. Whilst mainstream public sector funding is expected to continue to underpin funding for Green Infrastructure, it is anticipated that an appropriate contribution will be made towards Green Infrastructure by the new development it is intended to serve, while at the same time improving Green Infrastructure provision for existing residents. Funding for delivery of Green Infrastructure related to specific developments may be secured from developer contributions (either through planning obligations or the new Community Infrastructure Levy) in line with appropriate planning policies provided by the Central Lincolnshire Local Development Framework. Investment by the private sector in supporting a high quality environment and moving to a low carbon future through corporate environmental/social responsibility spending provides a further potential funding source for Green Infrastructure investment in Central Lincolnshire.

To ensure that Green Infrastructure is implemented effectively in Central Lincolnshire, the Study highlights a number of actions for embedding the relevant findings and recommendations of the Green Infrastructure Study in **spatial planning and development management**. These include draft Green Infrastructure policies for inclusion in the Central Lincolnshire Local Development Framework, and recommended Green Infrastructure standards for 'eco-development' and greenspace management.

The Study also includes a review of options that may be relevant to the **management and governance of Green Infrastructure assets** in Central Lincolnshire, supported by case studies that showcase best practice from other parts of the country.

The Study recommends **further work requirements** for developing the evidence base to inform local delivery of Green Infrastructure, including local assessments of open space, outdoor sports and play facilities; Historic Environment Opportunity Mapping Studies for the Gainsborough, Lincoln and Sleaford Areas; Townscape Character Assessment Studies for the urban areas of Gainsborough and Sleaford; and Landscape Sensitivity and Capacity Studies for the settings of Gainsborough, Lincoln and Sleaford. The Study recommends that biodiversity opportunity mapping is commissioned to update/inform the delivery of the Central Lincolnshire Green Infrastructure Strategy, including the proposed Central Lincolnshire Ecological Network Strategy and local Green Infrastructure delivery plans in particular. The local Green Infrastructure delivery plans are intended to inform detailed policies in Area Action Plans for the key growth locations, and provide more detailed guidance on how Green Infrastructure might be delivered in these areas by local partners and developers.

1.0 SETTING THE SCENE

1.1 Background

- 1.1.1 Central Lincolnshire refers to the combined area covered by the City of Lincoln, North Kesteven and West Lindsey. These three councils have come together in a formal partnership with Lincolnshire County Council to prepare a joint Local Development Framework (LDF) for the area. The Central Lincolnshire Joint Planning Unit (CLJPU) has been set up to carry out this work, and a new joint committee established with representatives from each of the four partner Councils. The name Central Lincolnshire reflects the centrality of Lincoln within the historic county of Lincolnshire, and the area's geographical location between North Lincolnshire and the more southern Lincolnshire districts of South Kesteven and South Holland.
- 1.1.2 The CLJPU is being supported by Communities and Local Government (CLG) as part of the second wave Eco-town programme to test the viability of delivering Eco-town Planning Policy Statement Standards for development through spatial policies of the Central Lincolnshire LDF. A strategic understanding of the opportunities that a well-planned green infrastructure (GI) network represents in this respect has been recognised as being important to achieving this objective.
- 1.1.3 In April 2011, the CLJPU and its partners commissioned environmental planning consultants Chris Blandford Associates to undertake a study to produce a strategic framework for the delivery of GI across Central Lincolnshire over the next 15-20 years.
- 1.1.4 The main objectives¹ of the Central Lincolnshire GI Study are to:
- Spatially identify the existing assets and attributes that contribute to the GI in Central Lincolnshire.
 - Identify, assess and map aspects of the existing network that need protection; what areas are likely to be sensitive to change, including development; and opportunities for potential new and enhanced assets that are required to improve the functionality of the GI network, including reference to delivering the aims of the Eco-town PPS on GI in developments.
 - Spatially set out a draft vision and strategic principles for the conservation and enhancement of the biodiversity, landscape, heritage, leisure and recreational assets of the existing GI network.
 - Spatially identify opportunities for how the GI network can support the delivery of other eco-development objectives in respect of flood risk and water management, micro climate management, sustainable energy and food production, and support objectives for improved health and well-being of existing and future communities.

¹ As set out in the Project Specification - Green Infrastructure Study for Central Lincolnshire (January 2011)

- Advise on appropriate draft GI policies for inclusion in the Central Lincolnshire LDF, to ensure sustainability of the required GI network and identify priority opportunities for investment.
- Identify how the Green Infrastructure Strategy can best support the delivery of the Growth Strategy and Infrastructure Delivery Plan being planned for through the LDF for Central Lincolnshire, including the opportunities presented by the development of the Witham Valley Sub-Regional Country Park, the Lincolnshire Wolds Area of Outstanding Natural Beauty, other major GI assets, and the opportunities associated with emerging new strategic development sites such as potential urban extensions to Lincoln, Sleaford and Gainsborough.
- Provide recommendations on how best to achieve the PPS1 Eco town supplement target of 40% green space provision within proposed new development sites (eco-town standard ET14) and consider how this standard could be applied to the range of communities that make up Central Lincolnshire, and to Central Lincolnshire as a whole.
- In general terms, evaluate options for being able to achieve sustainable infrastructure management and governance of current and future GI assets, and identify best practice from other parts of the country with regard to management and governance.

1.1.5 The Study is to be used as part of the evidence base to inform and support the development of spatial planning policy through the Central Lincolnshire LDF.

1.2 Need for the Study

1.2.1 The East Midlands Regional Plan March 2009 requires that 40,600 homes are delivered in the Central Lincolnshire Housing Market Area (HMA) between 2006 and 2026. Whilst the government proposes to abolish Regional Plans, the Central Lincolnshire Authorities have generally been supportive of this level of growth providing the necessary infrastructure can be put in place. Delivering this level of growth will require a rate of development above that previously achieved in the area.

1.2.2 To assist in managing this level of growth sustainably, the Central Lincolnshire Authorities formally resolved to prepare a joint LDF for Central Lincolnshire, which will include a Core Strategy. The Statutory Instrument establishing the CLJPC came into force in October 2009 and the CLJPU was operational on 1 May 2010.

1.2.3 Relevant national planning guidance gives general requirements for infrastructure provision, including GI. Planning Policy Statement (PPS) 12 (Local Spatial Planning)² states that the Core Strategy (which will set local strategic objectives) should be supported by evidence of what physical, social and GI is needed to enable the amount of development (e.g. growth) proposed for the area taking account of its type and distribution (paragraph 4.8).

² Planning Policy Statement 12 – Creating Strong and Prosperous Communities through Local Spatial Planning (2008, DCLG)

- 1.2.4 A number of strategic-scale sites are currently being promoted within and around Lincoln and adjoining the main towns of Sleaford and Gainsborough. Detailed assessment of these proposals is required to understand their deliverability and their associated opportunities to contribute towards realising a sustainable future for Central Lincolnshire and its diverse range of urban and rural communities. As the population grows, so will pressures on Central Lincolnshire's existing GI, highlighting the need for investment in new and enhanced GI provision to support growth proposals.

1.3 Study Area and Context

- 1.3.1 The Study Area is located within the East Midlands region of England. As shown on **Figure 1.1a**, it is bordered by East Lindsey District, Boston Borough and South Kesteven District within the County of Lincolnshire to the east and south. Newark & Sherwood District and Bassetlaw District in Nottinghamshire are located to the west of the Study Area, with North Lincolnshire and North East Lincolnshire to the north.
- 1.3.2 The overall Study Area shown on **Figure 1.1b** is contiguous with the boundary of the Central Lincolnshire HMA. The Central Lincolnshire HMA has a population of 282,800³, and encompasses the City of Lincoln, North Kesteven District and West Lindsey District. With the exception of the main built up area of Lincoln, the Study Area is predominantly rural comprising numerous villages and market towns of various sizes, with the main ones being Sleaford and Gainsborough.
- 1.3.3 For the purposes of the Study, three Sub-Areas⁴ have been broadly defined (see **Figure 1.1b**) to facilitate more detailed assessment of GI assets, needs and opportunities around Gainsborough, Lincoln and Sleaford where options for planned growth are currently focussed.

1.4 Green Infrastructure Concept

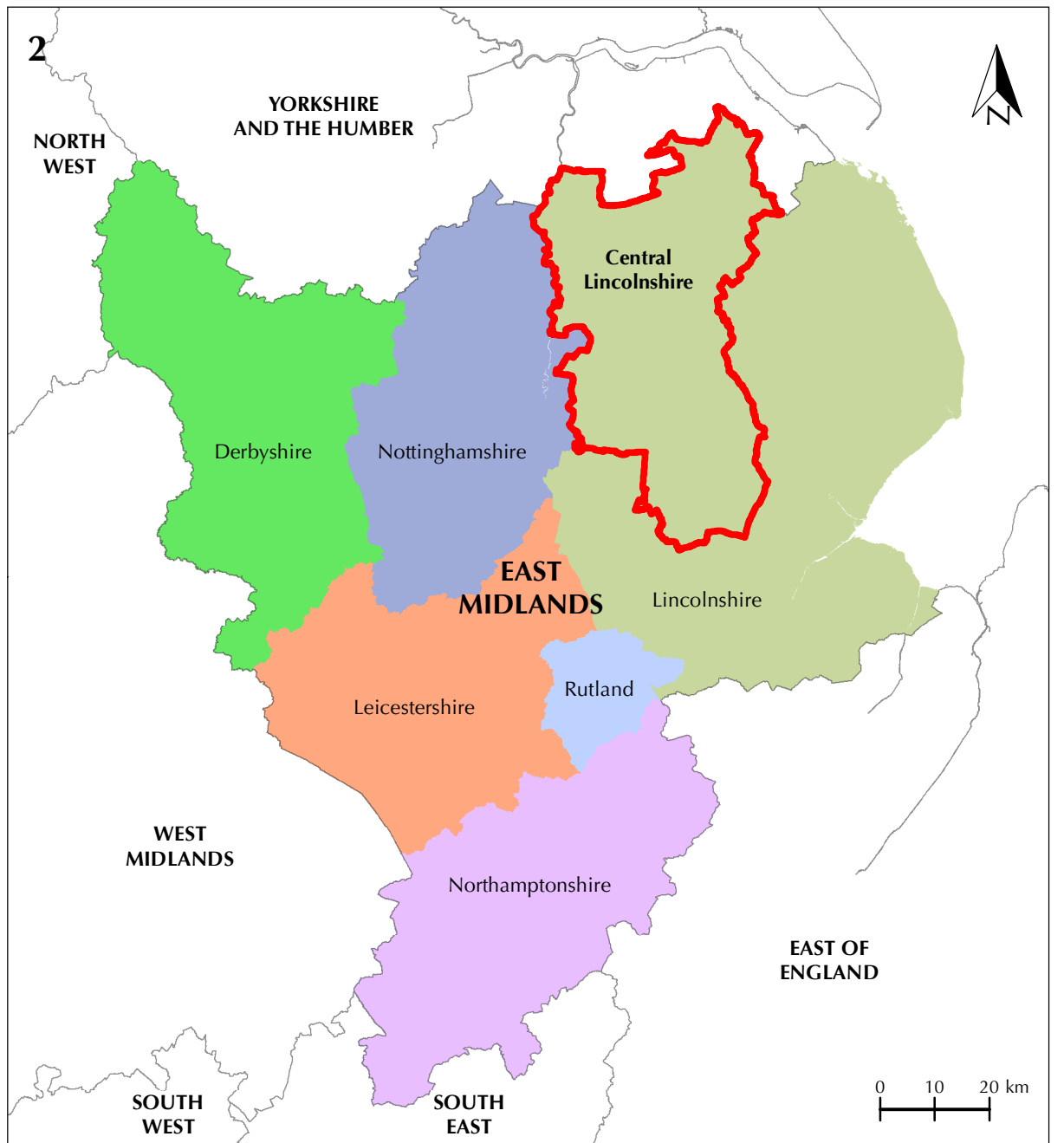
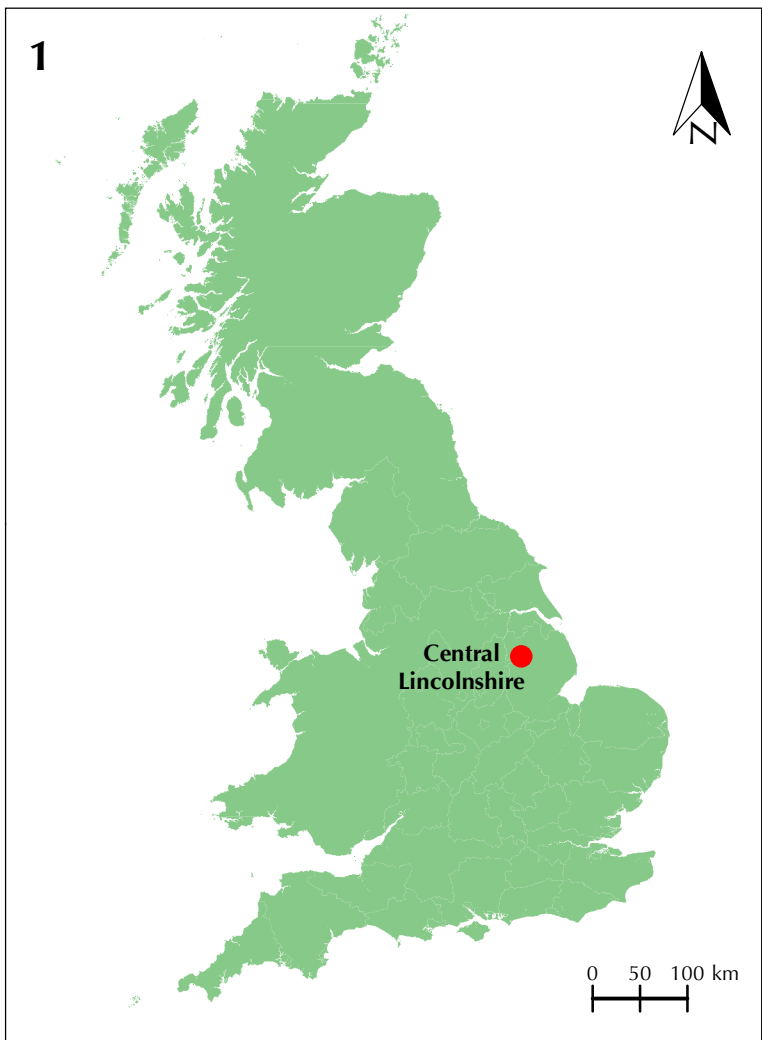
- 1.4.1 The GI concept promoted by this GI Study takes as its starting point the definition of GI as provided by PPS12 (Local Spatial Planning)⁵:

'A network of multi-functional greenspace, both new and existing, both rural and urban, which supports natural and ecological processes and is integral to the health and quality of life of sustainable communities' (paragraph 2.4).

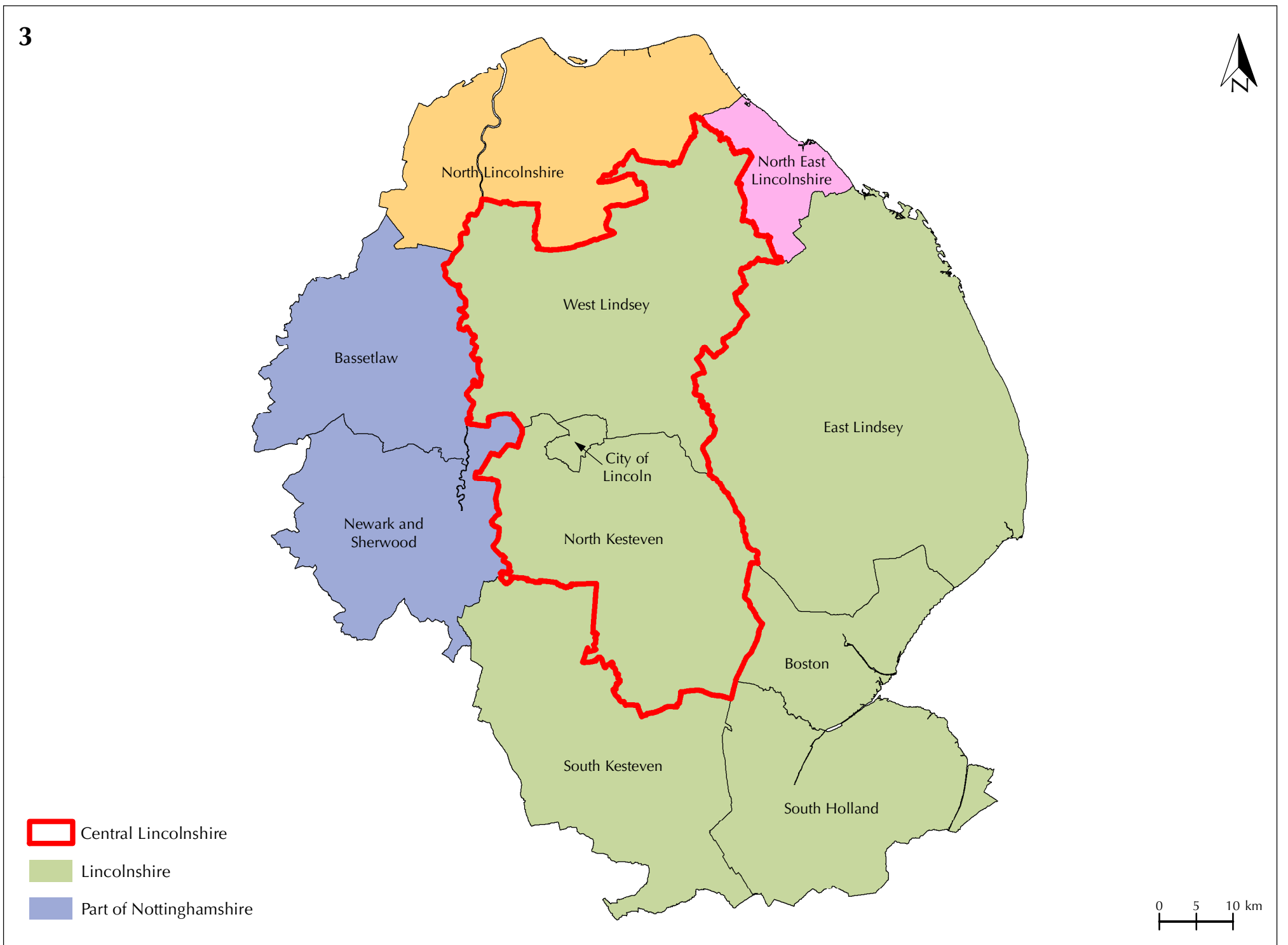
³ Population estimate provided in the Central Lincolnshire Core Strategy Issues and Options Consultation Document (October 2010, CLJSPC)

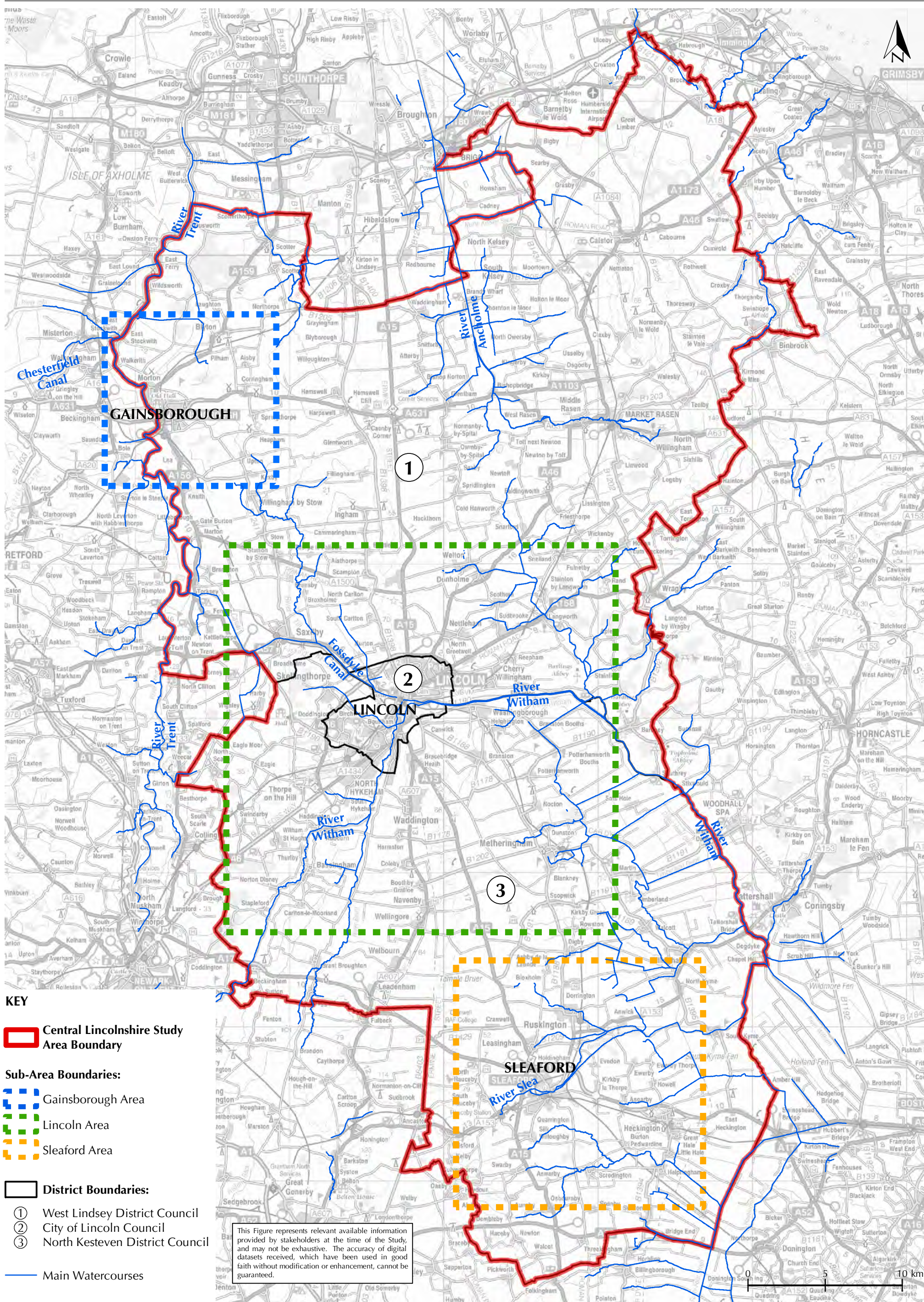
⁴ The extent of the Gainsborough, Lincoln and Sleaford Sub-Areas is based on the indicative areas defined in the Central Lincolnshire Core Strategy Issues and Options Consultation Document (October 2010, CLJSPC). Hereafter, the Sub-Areas are referred to as the Gainsborough, Lincoln and Sleaford areas

⁵ PPS12 - Local Spatial Planning (2008, DCLG)



1. Location
2. Regional Context
3. Sub-Regional Context





- 1.4.2 For the purpose of this Study, 'greenspace' is defined as comprising the following types of spaces:
- Allotments, community gardens and urban farms.
 - Amenity greenspaces (including green roofs).
 - Cemeteries, churchyards and disused burial grounds.
 - Green (and blue) corridors.
 - Natural and semi-natural greenspaces.
 - Parks and gardens.
- 1.4.3 In addition to the above greenspaces, GI assets also include domestic gardens and street trees; agricultural land; historic environment assets; and floodplains.
- 1.4.4 Green Infrastructure can comprise public and private assets, with and without public access. These assets sit within, and contribute to, high quality natural and built environments in urban and rural locations that are required to support sustainable communities. See **Section 2.2** for details of Central Lincolnshire's GI assets.
- 1.4.5 GI supports natural processes and delivers ecosystem services and benefits integral to the health and quality of life for Central Lincolnshire's communities. This includes, for example, flood attenuation and water resource management, carbon storage, countering the heat island effect of urban areas, and providing opportunities for access to nature and local food production. GI networks maintain critical ecological links between town and country and include a range of different greenspace types. In Central Lincolnshire, the GI network comprises both greenspaces within urban areas, such as Hartsholme Country Park and historic commons in Lincoln, and larger greenspaces in the countryside such as Laughton Wood. Major green corridors, such as the Witham Valley and Trent Valley are particularly significant GI assets within Central Lincolnshire.
- 1.4.6 GI is thus a holistic approach to planning and managing the natural environment that acknowledges the multiple benefits and vital functions it provides for the economy, wildlife, local people, communities and cultural heritage assets.⁶ Provision of new and enhanced GI is therefore an essential part of planning for Central Lincolnshire's future. Whilst multi-functionality can apply to individual sites and routes, it is increasingly understood that a fully multi-functional GI network will best be achieved when the variety of functions provided by sites and links are considered together holistically at a landscape scale.
- 1.4.7 The overarching concepts of the GI approach that underpin this Strategy are outlined below.

⁶ Green Infrastructure Guide for the East Midlands (2008, EMRA)

Green Infrastructure Functions

1.4.8 GI assets perform a variety of functions or services at all spatial scales, from individual sites within urban centres through to the landscape scale in the wider countryside⁷. GI can deliver a wide range of benefits for society through the range of functions it can fulfil. For the purpose of this Study, GI functions are considered under the following broad themes:

- Wildlife habitat provision.
- Landscape/townscape setting and historic context.
- Sustainable Access, recreation and movement.
- Sustainable local energy and food production.
- Sustainable resource management and climate change adaptation.

1.4.9 It should be noted that there is often overlap between the GI functions. For example, wildlife provision and access to nature are closely related.

Delivering Benefits

1.4.10 The benefits of investing in GI are usefully summarised in Natural England's Green Infrastructure Guidance⁸ and the Green Infrastructure Guide for the East Midlands⁹. Investment in GI can help achieve many of the Government's environmental, social and economic policy priorities (see **Appendix A3**). The well-established benefits of investing in GI are highlighted below.

GREEN INFRASTRUCTURE BENEFITS

- Addressing climate change adaptation and mitigation
- Tackling flood alleviation and water management
- Improving quality of place
- Improving physical and mental health and social well-being
- Improving skills and life-long learning
- Increasing community cohesion and volunteering opportunities
- Increasing land and property values
- Sustaining economic growth and investment
- Improving labour force productivity
- Increasing tourism
- Enhancing recreational and leisure opportunities
- Protecting and enhancing biodiversity and geodiversity
- Protecting and enhancing landscape character and cultural heritage
- Obtaining products from the land

⁷ Green Infrastructure Guidance (2009, Natural England)

⁸ Green Infrastructure Guidance (2009, Natural England)

⁹ Green Infrastructure Guide for the East Midlands (2008, East Midlands Green Infrastructure Network)

- 1.4.11 As noted above, in addition to environmental benefits, GI can help deliver economic and benefits, which presents a compelling case for investment in GI. Practical realisation of these benefits will depend on appropriate design and future management of GI, and effective engagement with partners and stakeholders during the design and implementation process.

Multi-Functionality

- 1.4.12 'Multi-functionality' – the potential for GI to have a variety of functions which deliver a broad range of social, economic and environmental benefits or services for society – lies at the core of the GI concept. Whilst multi-functionality can apply to individual spaces and routes, a fully multi-functional GI network will best be achieved when the variety of functions provided by the individual elements are considered together at all spatial scales – such as individual greenspaces encapsulated within urban areas and extensive greenspaces at the landscape-scale in the wider countryside.
- 1.4.13 A GI approach to development considers exploring variations in density and layout to provide opportunities for creating multi-functional and thus more useful greenspaces. For example, planning of sustainable drainage systems (SuDS) as an integral part of new development to provide flood attenuation and water management functions, while also providing associated opportunities for habitat provision and contributing to landscape/sense of place. Greenspaces can also be designed as 'common ground' to link and enhance the permeability of different parts of a development, with opportunities for recreation and play designed in from the outset. It is important that the planning and design of GI takes into account statutory requirements in relation to considerations such as land drainage, nature and historic environment conservation, and rights of way.

Green Infrastructure and the Built Environment

- 1.4.14 The GI approach goes beyond consideration of greenspaces, to also consider the built environment. Subject to the need to protect and enhance townscape features of historic and ecological significance, there are significant opportunities to retrofit GI into established built environments, and to embed GI into new built environments/growth areas, through creative design and use of measures such as:
- Green roof systems and roof gardens.
 - Green 'living' walls to provide insulation or shading and cooling.
 - Sustainable drainage systems/swales integrated as part of streetscape/traffic calming schemes or neighbourhood play areas.
 - New tree planting or altering the management of land associated with transport corridors (e.g. management of verges to enhance biodiversity).
 - De-canalisation of natural watercourses to enhance townscape character and biodiversity within urban areas.

- 1.4.15 It should be recognised that it may not always be practical for GI components to be immediately available ‘on the doorstep’ of every community, particularly if ‘retro fitting’ GI into established high density urban environments where design solutions such as those outlined above are not possible. In these cases, GI planning needs to focus on linking communities and wildlife within an urban area to greenspaces in the wider countryside, such as via a river corridor.

Ecosystem Services

- 1.4.16 The concept of ‘ecosystem services’ is an integral element of the overall GI approach. An ecosystem is a natural system that comprises of living (plants, animals and microbes) and non-living elements and their interactions. Through these interactions, ecosystems provide essential life-support products and services for human well-being, including basic material needs such as food and water. These comprise ‘provisioning’ services (e.g. food and energy crops production); ‘regulating’ services (e.g. flood control, water purification, air quality maintenance and pollination processes); ‘cultural’ services (e.g. non-material benefits that people obtain from the natural environment); and ‘supporting’ services (services necessary for the production of all other ecosystem services - e.g. nutrient recycling and soil formation processes).
- 1.4.17 The potential of GI to provide for mitigation of and adaptation to climate change, including the migration of species, is relevant in this context. For example, the European Union’s Climate Change Programme recognises that climate change will significantly affect economies and societies through its impacts on ecosystems. It also emphasises that healthy ecosystems will be more resilient to climate change, and thus be more capable of maintaining the supply of ecosystem services on which human prosperity and well-being depend. These messages are reinforced by the recently published UK National Ecosystem Assessment¹⁰, which showed the strong economic arguments for safeguarding and enhancing the natural environment.

Place-Making

- 1.4.18 GI planning can also help with ‘place-making’. This is the process of recognising the character, distinctiveness and sensitivities of different places, and ensuring that policies, programmes and proposals respond accordingly to landscape and townscape character, vernacular and sense of place. The quality and management of the countryside in and around towns, and neighbourhoods, streets and parks in urban areas, have a major influence on civic pride, community values/perceptions and local identity.

¹⁰ UK National Ecosystem Assessment: understanding nature’s value to society (June 2011, UNEP-WCMC, Cambridge).

- 1.4.19 GI planning therefore has a key role to play in the place shaping process. For example, through development of GI design principles for growth areas which respond to landscape/townscape character, vernacular and sense of place, and fostering community ownership and involvement in the delivery and management of GI on the ground through local engagement in project design, implementation and maintenance.

Green Infrastructure and Open Space Planning

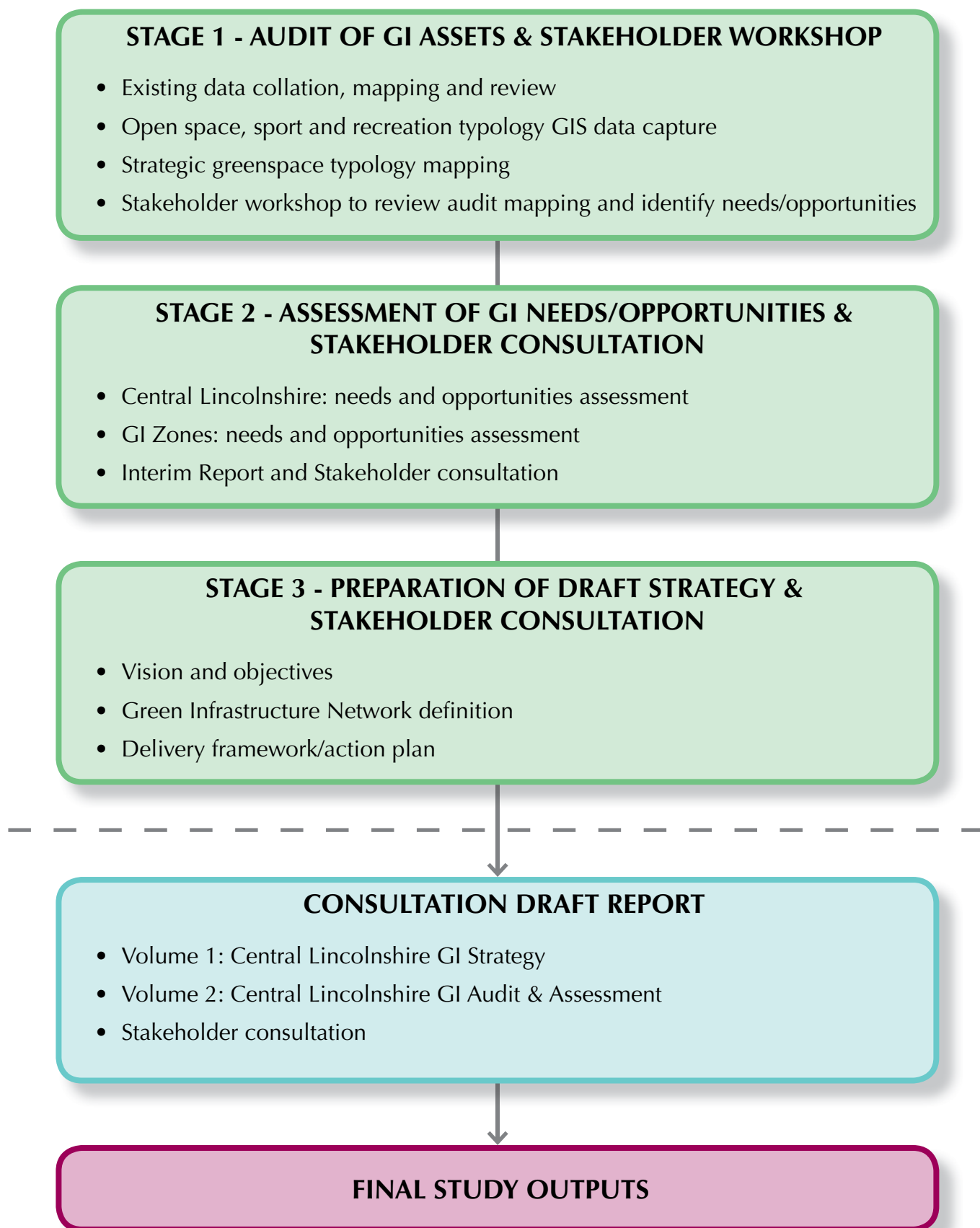
- 1.4.20 As recommended by the Natural England Green Infrastructure Guidance (2009), it is important to make a distinction between planning for GI (as reflected in this GI Strategy) and planning for open space, sport and recreation facilities (as reflected in the requirements of PPG17). GI planning goes beyond the site specific, considering also the 'big picture' – landscape context, hinterland and setting, as well as strategic links of sub-regional scale and beyond. GI also provides a multifunctional, connected network delivering ecosystem services. Whilst PPG17 compliant studies consider typologies beyond sports and amenity space, greenspaces are considered primarily from access, quality and management perspectives, rather than consideration of wider environmental benefits and services. These greenspaces are, however, important constituents of a GI network.

1.5 Overview of Approach

- 1.5.1 The Study was undertaken in stages by CBA, and has been informed by consultation with over 100 local stakeholders involved in planning, managing and delivering GI and sustainable development across Central Lincolnshire.
- 1.5.2 As outlined on **Figure 1.2**, the study process involved three key stages of work:
- Stage 1 – Audit of GI Assets & Stakeholder Workshop.
 - Stage 2 – Assessment of GI Needs/Opportunities & Stakeholder Consultation.
 - Stage 3 – Preparation of Draft Strategy & Stakeholder Consultation.
- 1.5.3 The approach to each of the stages is described in the Study Methodology set out in **Appendix A1**.

1.6 Study Outputs

- 1.6.1 The Study is presented as two volumes:
- **Volume 1** - GI Strategy (this report).
 - **Volume 2** - GI Audit and Assessment.



- 1.6.2 Volume 1 sets out the proposed GI Strategy for Central Lincolnshire, which should be read in conjunction with the baseline GI Audit and Assessment set out in **Volume 2**. The remainder of this GI Strategy report is structured as follows:
- **Section 2.0** presents an overview of Central Lincolnshire's GI assets, and summarises the key needs and opportunities for future GI investment.
 - **Section 3.0** sets out a draft vision and objectives for GI, and defines a proposed Green Infrastructure Network for Central Lincolnshire.
 - **Section 4.0** outlines a proposed framework for the delivery of the GI Strategy's vision, including recommended strategic GI initiatives and projects, potential funding sources and an outline action plan, proposals for embedding GI in spatial and development management, and options for GI management and maintenance.
- 1.6.3 Additional supporting information is provided in the following appendices:
- **Appendix A1** Study Methodology.
 - **Appendix A2** Private Gardens, Street Trees and Green Roof Research.
 - **Appendix A3** Policy Context Summary.
 - **Appendix A4** Additional Green Infrastructure Funding Sources
 - **Appendix A5** LDF Green Infrastructure Policy Advice.
 - **Appendix A6** Review of Green Infrastructure Management and Governance Options.
 - **Appendix A7** Green Infrastructure Management and Governance Case Studies.
 - A glossary of terms is provided in **Volume 2: Appendix A22**.
- 1.6.4 GIS datasets/database will also be provided as part of the Study outputs. A separate Executive Summary is also available.

2.0 CENTRAL LINCOLNSHIRE'S GREEN INFRASTRUCTURE

2.1 General

- 2.1.1 This section presents an overview of Central Lincolnshire's GI assets, and summarises the key needs and opportunities for future GI investment. This section should be read in conjunction with the detailed GI audit and assessment presented in **Volume 2: Sections 2, 3 and 4**.

2.2 Overview of Green Infrastructure Assets

- 2.2.1 Central Lincolnshire lies in the heart of Lincolnshire in the East Midlands region. Its population lives in a range of settlements that vary greatly in size and character. The City of Lincoln is the largest settlement and the main centre for jobs and facilities, with a regional role that extends to cover much of Lincolnshire and adjoining parts of Nottinghamshire. The towns of Gainsborough, Sleaford, Market Rasen and Caistor play a significant role in the provision of housing and facilities in their rural catchments. Over half of the population of Central Lincolnshire lives in rural areas, which are characterised by a highly dispersed pattern of villages and market towns.
- 2.2.2 Central Lincolnshire has a varied natural environment, including gentle chalk and limestone uplands as well as low lying vales and fens. The Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB) falls partly within Central Lincolnshire, the remainder being in East Lindsey and North East Lincolnshire. Land use is predominantly agricultural, with arable dominating, but there are also important natural areas including woodland and lowland heath. The main rivers are the Trent, Witham and Ancholme. Central Lincolnshire contains many features of historic interest including numerous listed buildings and scheduled monuments. Lincoln Cathedral is widely regarded as one of the finest in England, and forms the heart of Lincoln's expanding tourist offer.
- 2.2.3 Within this context, **Figure 1.3** illustrates the general extent and distribution of the different types of GI that have been defined as comprising Central Lincolnshire's existing GI assets for the purposes of this Study. With appropriate management and investment, Central Lincolnshire's GI assets can offer a wide range of environmental, social and economic benefits based on the functions that they deliver (see **Table 2.1**).

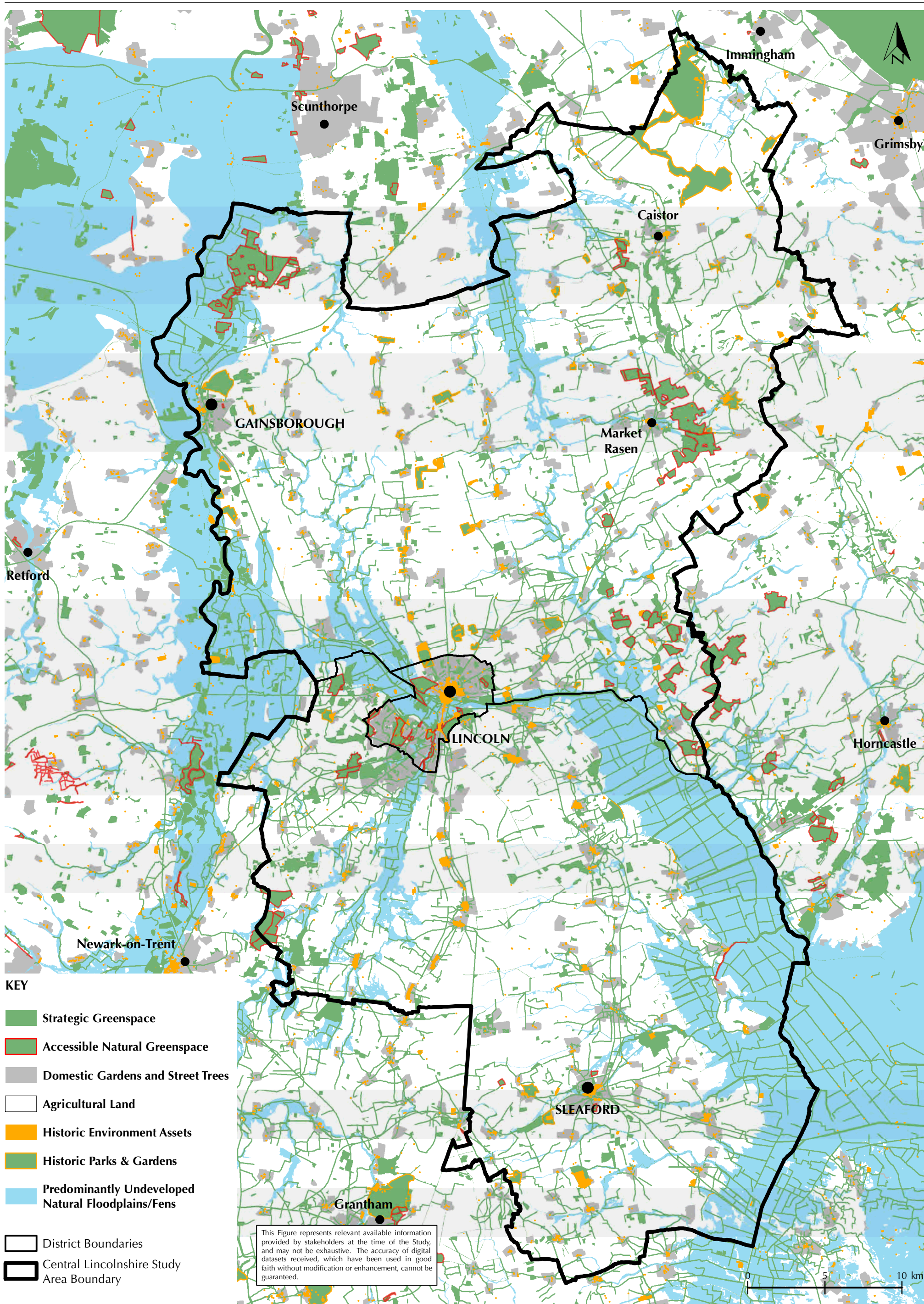


Table 2.1: Functionality of Central Lincolnshire's GI Assets

GI Assets		GI Functions (✓ primary function; ✓✓ secondary function)				
		Wildlife habitat provision	Landscape/ townscape setting & historic context	Sustainable access, recreation & movement	Sustainable local energy & food production	Sustainable resource management & climate change adaptation
Strategic Greenspace ¹¹	Allotments, Community Gardens & Urban Farms	✓✓		✓✓	✓	✓✓
	Amenity Greenspaces - informal recreation spaces; communal greenspaces within housing areas; children's play areas; outdoor sport facilities; village greens; urban commons; green roofs; other incidental space.	✓✓	✓✓	✓		✓✓
	Cemeteries, Churchyards & Disused Burial Grounds	✓✓	✓✓	✓		
	Green (and Blue) Corridors - rivers and canals (and their banks); main drains; rail corridors; hedgerows; ditches; cycling routes; pedestrian paths; rights of way.	✓✓	✓✓	✓		✓✓
	Natural & Semi-Natural Greenspaces - woodland and scrub; grassland; wetlands; open water; bare rock habitats (e.g. cliffs and quarries); existing sites of national and local biodiversity importance and interest.	✓	✓✓	✓✓	✓✓	✓✓
	Parks & Gardens - urban parks and gardens; country parks.	✓✓	✓✓	✓	✓✓	✓✓
Domestic Gardens & Street Trees		✓✓	✓✓	✓	✓✓	✓✓
Agricultural Land		✓✓	✓✓	✓✓	✓	✓✓
Historic Environment Assets - nationally listed buildings, scheduled monuments; historic parks and gardens of national and local historic interest; conservation areas ¹² .		✓✓	✓	✓✓		
Predominantly Undeveloped Natural Floodplains/Fens ¹³		✓✓	✓✓	✓✓	✓✓	✓

¹¹ For the purpose of this Study, 'strategic greenspace' is defined as an individual greenspace over 2ha, or clusters of smaller greenspace sites in close proximity to each other, that together create a site over 2ha in size.

¹² Locally listed buildings and non-scheduled monuments are not included as data currently unavailable in suitable format.

¹³ This is the extent of the natural floodplain if there were no flood defences or certain other manmade structures and channel improvements within predominantly undeveloped areas outside of the main settlements. It comprises areas that have a 1 in 1000 (Flood Zone 2) and 1 in 100 (Flood Zone 3) probability of flooding. It also includes the low-lying fens which have been artificially drained and continue to be protected from floods by drainage banks and pumps.

- 2.2.4 **Strategic greenspace** within Central Lincolnshire include public and private assets, with and without public access, in urban and rural locations (see **Volume 2: Figure 2.14a-d** for details of the strategic greenspace typology). Natural and semi-natural greenspaces, green corridors and blue corridors (including drainage ditches and other watercourses) extend throughout rural areas, connecting urban greenspaces (such as allotments, cemeteries and playing fields) within the settlements, including Gainsborough, Lincoln and Sleaford. An extensive network of green corridors provides a range of linear access routes for walkers, cyclists and horse-riders between settlements and the wider countryside (including strategic access routes such as the Viking Way and the National Byway for example), and connects Central Lincolnshire to adjacent areas. A number of navigable waterways, such as the Fossdyke Canal, are important blue corridors that provide a valuable leisure and recreational resource and are in many cases of particular natural and historic importance. Natural and semi-natural greenspaces comprise a fragmented and widely distributed network of relatively small, and often isolated, wildlife habitats, including grassland, heathland, wood pasture, parkland and woodland. There are notable concentrations of designated nature conservation sites in the Lincolnshire Limewoods, around Lincoln and Gainsborough, and to the east and north of Market Rasen.
- 2.2.5 Overall, a large proportion of the strategic greenspaces within Central Lincolnshire have no (or restricted) public access¹⁴. Within the Lincoln area, residents and visitors have access to **accessible natural greenspaces**, such as that provided by West Common, Hartsholme Country Park, Whisby Nature Park and South Common. Residents and visitors only have access to very few accessible natural greenspaces in and around Gainsborough and Sleaford. Accessible natural greenspace within Loughton Wood, the Lincolnshire Wolds AONB and Lincolnshire Limewoods provide important areas that allow public access to nature for residents and visitors from Gainsborough and Lincoln in particular.
- 2.2.6 **Domestic gardens and street trees** within settlements also represent an important GI asset in Central Lincolnshire, as evidenced by the summary of research into the biodiversity value of gardens, street trees and green roofs provided in **Appendix A2**.
- 2.2.7 **Agricultural land** is the dominant land use within Central Lincolnshire and has an important role to play in local food production and also, increasingly, energy production. In addition to being an important GI asset in its own right, with investment and appropriate management agricultural land can contribute to other key GI functions such as conservation and enhancement of landscape character, access improvements and habitat enhancement, linkage and creation.

¹⁴ Sites which do not fall within Natural England's definition of accessible greenspace, as stated in their 2010 '*Nature Nearby - Accessible Natural Greenspace Guidance*', are classified as having no public access or restricted access. Natural England's definition states that '*accessible greenspace are places that are available for the general public to use free of charge and without time restrictions (although some sites may be closed to the public overnight and there may be fees for parking a vehicle)*'.

- 2.2.8 **Historic environment assets** are an important element of Central Lincolnshire's GI network. These include numerous buildings and townscape of national historic and architectural interest (such as Lincoln Cathedral and Castle), nationally important archaeological monuments (such as Roman archaeology), designed historic landscapes (such as Lincoln Arboretum and Rauceby Hall), and also a wide range of features that contribute to the area's historic landscape character (including field boundaries, earth works, etc).
- 2.2.9 **Floodplains**¹⁵ are an important landscape-scale GI asset in Central Lincolnshire and include the major floodplains of the Trent, Ancholme and Witham, and other smaller rivers. The floodplains also include the low-lying and fertile fens, which are protected from floods by drainage banks and pumps. Not only of importance for flood management and food production, with investment and appropriate management floodplains can also provide other key GI functions such as wildlife habitat provision, access and recreational opportunities.

2.3 Green Infrastructure Needs and Opportunities

- 2.3.1 Drawing on the assessment provided in **Section 3.0** and **Section 4.0** of **Volume 2**, and taking into account the policy context for GI provision outlined in **Appendix A3**, the key needs and opportunities for safeguarding and enhancing GI in Central Lincolnshire are highlighted below:

Biodiversity

- Align Central Lincolnshire's aspirations for biodiversity enhancement and GI delivery with the Coalition Government's emerging biodiversity policies as reflected in the Natural Environment White Paper, which is based on the research in the National Ecosystem Assessment and the recommendations of 'Making Space for Nature' (the Lawton Review).
- There is a need to reverse the loss and fragmentation of natural and semi-natural habitats in Central Lincolnshire by restoring extensive areas of habitat and linking isolated small remnants and buffering these from surrounding inhospitable land uses to reduce vulnerability and enhance biodiversity.
- Adopt an integrated landscape-scale approach to establishing coherent and resilient ecological networks for Central Lincolnshire that shifts the emphasis away from piecemeal conservation actions.
- Use biodiversity opportunity mapping studies to inform the creation of an ecological network for Central Lincolnshire designed to deliver local and regional biodiversity targets.
- Opportunities to improve the ecological status of Central Lincolnshire's watercourses through reductions in over-abstraction, point source pollution and diffuse pollution should be sought (e.g. on-going reviews of abstraction licences and initiatives such as Environmental Stewardship and Catchment Sensitive Farming).

¹⁵ The floodplain shown on **Figure 1.3** and referred to in this report is the extent of the natural floodplain if there were no flood defences or certain other manmade structures and channel improvements within predominantly undeveloped areas outside of the main settlements. It comprises areas that have a 1 in 1000 (Flood Zone 2) and 1 in 100 (Flood Zone 3) probability of flooding.

- Opportunities exist for linking the naturalisation and diversification of watercourses and significant riparian habitat restoration and creation, especially floodplain grassland and wetland, with the delivery of flood control measures such as the creation of 'washlands'.

Landscape and Heritage

- Need to carefully consider the impact of new development in areas of landscape and visual sensitivity, including the Lincolnshire Wolds AONB, Areas of Great Landscape Value and the setting of historic landmarks such as Lincoln Cathedral.
- There is a need to protect areas of open land from development in and around the settings of settlements, in particular Lincoln, Gainsborough and Sleaford, which contribute to maintaining settlement character and preventing coalescence of adjoining settlements.
- Opportunities exist for encouraging positive management of intact and denuded landscape features which are under pressure from agricultural activities and development.
- The key role that farmers and other land managers play in the protection and enhancement of the landscape through participation in environmental land management schemes needs to be recognised.
- Opportunities to improve the presentation, accessibility, interpretation and management of buildings, sites and landscape features of historic value should be sought.
- There is a need to promote high quality design of new development to enhance the integrity and local distinctiveness of its landscape and townscape context.

Access to Greenspace

- Opportunities for provision of outdoor recreational spaces, access to greenspace and walking/cycling routes should be sought to help deliver key benefits for public health and well-being, and to support the tourist economy in Central Lincolnshire.
- The strategic need to provide a range of new accessible natural greenspaces, particularly neighbourhood scale sites (sites >2ha within 300m), to meet existing and future needs around Gainsborough, Lincoln and Sleaford.
- There is a need to address the following deficiencies of accessible natural greenspace and Local Nature Reserves based on Natural England's Access to Natural Greenspace Standard:
 - * Gainsborough Area – deficiency in neighbourhood accessible natural greenspace sites for all inhabitants except a small pocket of residents in the eastern part of the town; deficiency in district scale sites (sites >20ha within 2km) for all residents; and deficiency in county scale sites (sites >100ha within 5km) for two thirds of residents.
 - * Lincoln Area - deficiency in neighbourhood accessible natural greenspace sites for all inhabitants except small pockets of residents in the north-east, north-west, south-east, Birchwood and Boultham Moor parts of the town; deficiency in district scale sites for small pockets of residents in the north-east and southern tip (North Hykeham area); deficiency in county scale sites for residents living in the southern tip of Lincoln; and sub-regional sites (sites >500ha within 10km) for all of Lincoln.
 - * Sleaford Area - deficiency in neighbourhood accessible natural greenspace sites for all inhabitants except three small pockets of residents in the north, centre and south parts of the town; and deficiency in district, county and sub-regional scale sites for all residents.
 - * Central Lincolnshire - 55ha deficiency of Local Nature Reserves for existing populations, plus an additional deficiency of 146ha by 2031 to meet the needs of future populations.

- Opportunities to make existing greenspaces around Gainsborough, Lincoln and Sleaford more natural and/or accessible should be sought where appropriate, such as through support for the emerging aims and objectives of the Witham Valley Country Park, and opportunities for restoring disused minerals workings.
- There is a need to undertake detailed open space, sport and recreation studies to assess current and future needs and opportunities across Central Lincolnshire, and to inform standards of provision for specific open space types and sport facilities as applicable.
- The need to address strategic gaps in the rights of way network, in both urban and rural areas, to provide a well-connected sustainable access network to key services/facilities (including public transport), visitor destinations and the wider countryside, to encourage a modal shift in transport use away from private cars.
- Opportunities for improving the access and recreation value of waterways and their banks (e.g. improving access to nature, walking, horse riding, canoeing and links to key destinations) through provision of new and/or enhanced visitor and waterway infrastructure.

Ecosystem Services

- In line with Government targets, opportunities should be sought to embed the generation of renewable energy into the management of the GI network informed by the Central Lincolnshire Energy Study (e.g. wind energy provision in suitable areas; district heating infrastructure for new development in urban areas; use of agricultural and forestry wastes to supply biomass for renewable heat generation; production of energy crops in suitable areas such as *Miscanthus* grasses and short-rotation coppice woodland).
- The need to embed energy production/conservation into the masterplanning of new development and retrofit renewable energy and conservation measures into the existing housing stock.
- Opportunities should be sought to promote and support high quality locally produced food and to identify land suitable for independent food growing initiatives (e.g. allotments, community gardens and community orchards) in conjunction with other GI functions such as energy production and recreation.
- Opportunities to integrate GI provision with the implementation of sustainable flood risk management measures should be explored for both existing and potential new development.
- The Environment Agency's River Trent, Witham and Grimsby/Ancholme CFMPs, and emerging Upper and Lower Witham Flood Risk Studies and the Lincolnshire Local Flood Risk Strategy, are key to identifying, at an early stage, opportunities for delivering GI measures in Central Lincolnshire.
- The plans, policies and programmes of the different public bodies responsible for flood risk and land drainage management in Central Lincolnshire should be aligned in respect of maximising delivery of GI benefits.
- The need to retain and increase woodland in suitable locations in order to reduce soil erosion, improve water quality, increase biodiversity, store carbon and provide a renewable fuel, and to ameliorate the effects of air pollution within urban areas.

3.0 GREEN INFRASTRUCTURE VISION AND OBJECTIVES

3.1 General

- 3.1.1 This section sets out a draft vision and objectives for GI, and defines a proposed Green Infrastructure Network for Central Lincolnshire based on analysis of the area's GI assets and their future needs and opportunities for protection and enhancement. Together, these provide a long-term and aspirational framework for GI delivery to 2026/2031, and beyond.

3.2 Vision and Objectives

DRAFT VISION FOR GREEN INFRASTRUCTURE IN CENTRAL LINCOLNSHIRE

By 2026/2031, investment in green infrastructure has shaped the future economic, social and environmental success of Central Lincolnshire by supporting sustainable growth, tackling climate change and improving quality of life.

Central Lincolnshire's local distinctiveness, built heritage and natural assets have been protected and enhanced by careful planning and management, and are a key attraction for both residents and visitors. The area now has an extensive multi-functional network of 'green infrastructure', including the new Witham Country Park near Lincoln, contributing to nature conservation, leisure and climate change mitigation.

Central Lincolnshire is a greener and healthier place to live. Communities in urban and rural areas across the area and beyond are connected by green corridors and access links. New development providing for growth around Lincoln, Gainsborough and Sleaford has been well integrated into a 'green grid' network of greenspaces and access links within and around these settlements.

An increasingly coherent and resilient ecological network of wildlife habitats is helping conserve biodiversity and support the delivery of ecosystem services across Central Lincolnshire.

- 3.2.1 It is recommended that these aspirations be delivered through action in a number of priority areas, which are reflected in the draft objectives set out below.

DRAFT OBJECTIVES FOR GREEN INFRASTRUCTURE IN CENTRAL LINCOLNSHIRE

The overall objective is to improve and provide new GI in Central Lincolnshire by enhancing, developing and providing a multi-functional network of greenspaces, parks, rivers and other corridors within and around settlements that connect them to each other and the wider countryside, improving access, environmental quality and biodiversity.

This is supported by the following sub-objectives:

- To safeguard the supply of ecosystem services in Central Lincolnshire on which human prosperity and well-being depend.**

- To promote a landscape-scale approach to reducing further loss and fragmentation of wildlife habitats in Central Lincolnshire, by working to achieve more, bigger, better and inter-connected areas for wildlife.
- To protect and enhance the natural assets and historic assets (and their settings) that underpin the landscape/townscape character of Central Lincolnshire, ensuring that these assets continue to contribute to local distinctiveness.
- To promote opportunities for sustainable access, recreation and movement to encourage healthy lifestyles and well-being for communities in Central Lincolnshire.
- To ensure that greenspaces are designed and managed to incorporate a range of sports and recreation facilities.
- To increase the quality, accessibility and use of natural greenspace and other GI assets by local communities in Central Lincolnshire.
- To enhance rights of way and cycling networks across Central Lincolnshire to encourage a modal shift to walking and cycling.
- To promote opportunities for sustainable local energy and food production in Central Lincolnshire to contribute to mitigating climate change by lowering the area's carbon footprint.
- To adapt to and mitigate climate change by enabling Central Lincolnshire to be more resilient to flooding (thus reducing flood risk), drought and higher urban temperatures.
- To ensure that masterplanning of new development providing for growth around Lincoln, Gainsborough and Sleaford meets eco-town development standards for GI provision and biodiversity.
- To ensure that new development in Central Lincolnshire is well designed and constructed to high environmental sustainability standards.
- To provide a quality environment for local communities and businesses in Central Lincolnshire, attracting and retaining inward investment.
- To realise opportunities for new businesses, skills and jobs related to GI management and green technologies in Central Lincolnshire.

3.3 The Proposed Green Infrastructure Network

Strategic Priorities for GI Investment

- 3.3.1 Investment in a connected and multi-functional GI network is necessary to support sustainable development objectives. The analysis of existing GI assets, needs and opportunities set out in detail in **Volume 2**, and summarised in **Section 2.0** and on **Figure 1.3**, provides the baseline for developing a GI Network for Central Lincolnshire.

- 3.3.2 The spatial representation of the overall GI Network is illustrated through corridors and linkages, which together provide a 'bigger picture' for the delivery of GI in Central Lincolnshire. It is intended to help focus attention or priority on land that needs to be safeguarded, managed or secured in positive ways to create a multi-functional network of greenspaces, links and environmental assets for which investment can deliver the greatest range of benefits. It is not a rigid approach. The GI Network is intended to be flexible and responsive to opportunities and constraints - such as land ownership, community aspirations, access to funding, land drainage requirements, development opportunities, nature conservation policy considerations, etc.
- 3.3.3 The GI concept applies across the whole of Central Lincolnshire, and it can operate at any scale. However, the proposed Green Infrastructure Network identifies locations where targeting investment in GI is most likely to deliver multiple benefits across a range of key environmental, social and economic policy drivers. The main considerations in steering investment priorities are:
- To focus investment on GI provision and management to address current deficits and needs;
 - To meet the GI needs of communities in and around Gainsborough, Lincoln and Sleaford that are likely to experience major growth in the period to 2026/2031; and
 - To protect, enhance and manage existing valuable GI assets that are under current or future pressure, in particular accessible natural greenspaces, biodiversity sites, heritage features and watercourses.
- 3.3.4 In response to the above, broadly defined strategic corridors are identified, within which investment in new and enhanced GI provision can be prioritised and delivered over the next 15-20 years or so. These corridors reflect the identified needs and opportunities for enhancing the connectivity of habitats and greenspaces for biodiversity and public benefit. They provide the context for the delivery of GI initiatives and projects that would provide, in many cases, multiple functions and benefits to meet a range of needs. GI interventions within and adjacent to these corridors would focus on the enhancement and restoration of existing GI assets, as well as the creation of new resources.
- 3.3.5 It is important to ensure that the integrity of the overall GI Network is not compromised by inappropriate development and land management. This means that there needs to be flexibility in how the GI Network is protected and managed. In cases where there is an unavoidable need to trade-off harm to existing GI assets to meet social and economic needs, this should be offset by mitigation and compensation measures to enhance the functionality of other environmental assets elsewhere within the GI Network. However, some habitats, such as ancient woodlands, are irreplaceable and need protection. Where development is planned within or in close proximity to a GI assets, it should become an integral feature to the design

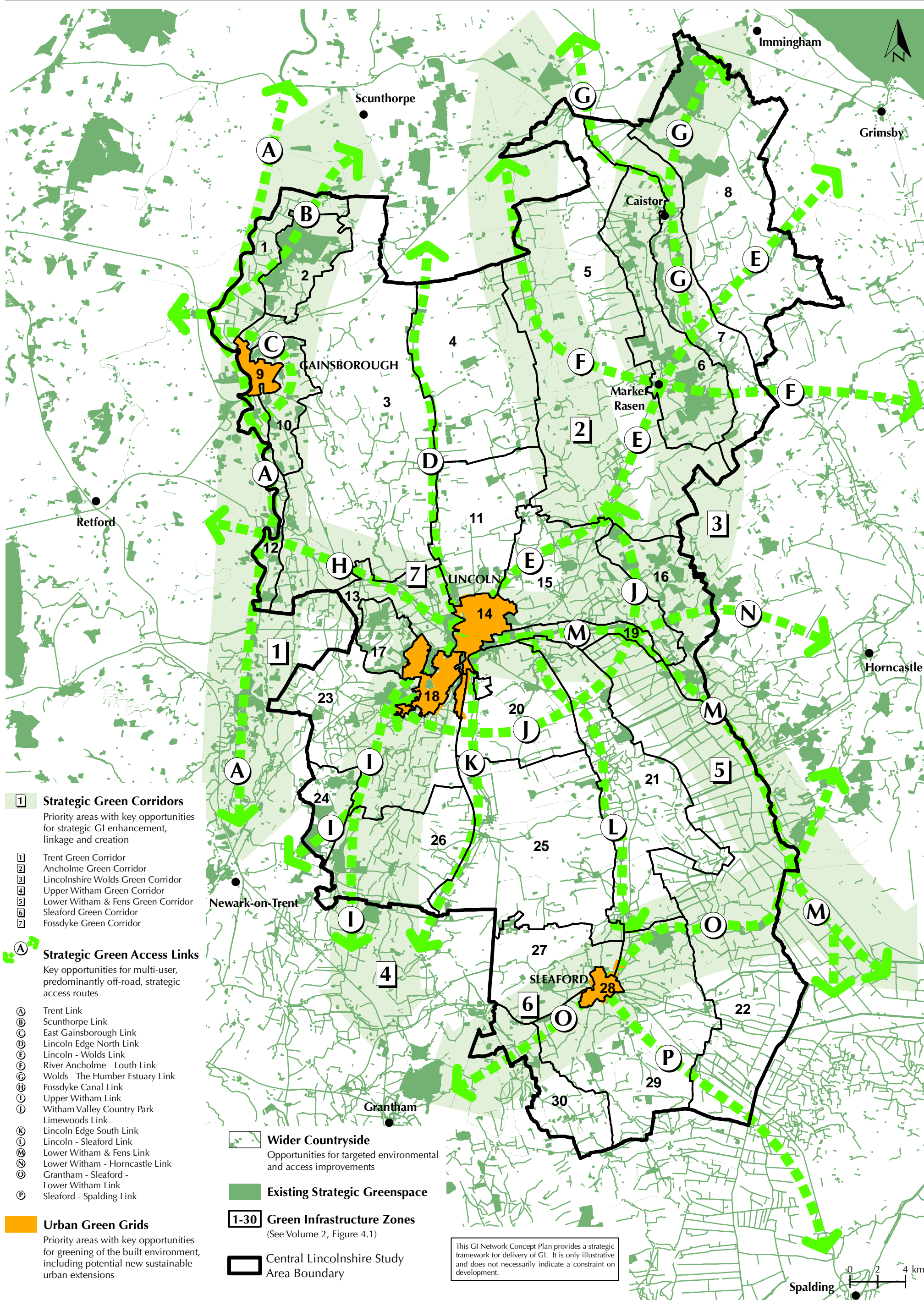
and 'identity' of the development site to ensure that the connectivity of the network for both public benefit and biodiversity is retained and enhanced.

3.3.6 The proposed GI Network encapsulates a range of GI assets within varied landscape and townscape settings. With investment and appropriate management over time, the GI Network will offer more diverse uses, experiences and functions to deliver increased economic, environmental and social benefits for Central Lincolnshire. These include:

- Linking housing, schools and bus/train stations to the access network and connecting with accessible greenspaces in the wider countryside.
- Providing an improved image, experience and sense of place through investment in an improved environmental quality for the public realm.
- Contributing to health improvements and well-being through schools, hospitals and health centres promoting opportunities to access greenspaces for exercise.
- Opportunities to provide environmental education through parks, nature reserves and farm-based activities.
- Helping address climate change through sustainable management of waste, water and pollution, production of energy crops and creation of woodland to act as carbon sinks.
- Recognising the key role of the agricultural sector in local food production, processing of local produce and provision of farm shops.
- Increasing awareness of, and celebrating, historic environment assets and how they contribute to local distinctiveness and sense of place.
- Ensuring that future urban extensions are well integrated into the adjoining settlements, and address issues such as indistinct boundaries, poor accessibility, fragmented urban fringe landscapes, etc.
- Providing opportunities for local community involvement through volunteering and gaining new skills through GI project delivery, particularly within deprived communities.
- Strengthening management of wildlife habitats for sites experiencing recreational pressures.

3.3.7 The proposed GI Network for Central Lincolnshire is illustrated on the concept plan in **Figure 1.4a**. The GI Network encompasses a range of GI types, functions, locations, sizes and levels of accessibility and use, and operates at every spatial scale and in all geographic areas within the area, both rural and urban. However, the proposed GI Network identifies locations where targeting investment in GI is most likely to deliver multiple benefits across a range of key environmental, social and economic policy areas. The main priorities are considered to be:

- To focus investment in GI provision and management to address current deficits of provision/needs identified by this Study.
- To meet the needs of communities in Central Lincolnshire who are likely to experience major growth-related pressures over the next 15-20 years.
- To conserve and manage existing valuable GI assets that are under current or future pressure – including in particular core biodiversity areas, river valleys/wetlands and accessible natural greenspace.



- 3.3.8 In response to the above, the proposed GI Network defines specific areas within which it is recommended that investment in new and enhanced GI provision be prioritised. The priority areas for action were identified through an interpretation of the interplay between broad patterns and opportunities arising from the analysis of the existing GI assets, particularly in relation to objectives for developing wildlife and access networks. These provide the context for development of strategic GI initiatives and projects that would provide, in many cases, multiple functions and benefits to meet a range of social, economic and environmental needs.
- 3.3.9 The principal components of the GI Network are outlined below. These should be read in conjunction with the analysis set out in **Volume 2: Section 4.0** of the needs and opportunities for provision of GI within the 30 'GI Zones' as illustrated on **Figure 1.4a**.

Strategic Green Corridors

- 3.3.10 A network of Strategic Green Corridors, priority areas with key opportunities for strategic GI enhancement, linkage and creation, provide the backbone of the GI Network. They are broadly defined, landscape-scale corridors comprising a mosaic of land uses, natural features and habitats, built heritage, archaeological resources and settlements, and are intended to become fully multi-functional zones with the ability or potential to deliver a wide range of economic, environmental and social benefits. The Strategic Green Corridors include core areas of designated natural and semi-natural wildlife habitats, and provide opportunities for restoring and re-creating habitats outside of core areas, and provision of wildlife corridors and stepping stones to connect existing and new habitats. These Corridors are significant GI assets for Central Lincolnshire, and also provide key strategic linkages at the District and Sub-regional level with GI networks in adjoining areas. The following Strategic Green Corridors are proposed:

- **1: Trent Green Corridor**

This corridor includes the River Trent floodplain and provides a major strategic connection to GI in adjoining areas within Nottinghamshire and North Lincolnshire, and strategically links to the Fosdyke Green Corridor (7), providing a connection with Lincoln. It comprises Areas of Great Landscape Value (including Laughton Woods) and other key assets such as Lea Marsh SSSI. Opportunities include biodiversity enhancement work, new access routes and the creation of accessible natural greenspace to address deficiencies, particularly around Gainsborough, where major growth is planned.

- **2: Ancholme Green Corridor**

This corridor extends from the Limewoods area northwards to the Humber, linking to green corridors 3 (Lincolnshire Wolds) and 5 (Lower Witham & Fens). Key assets include the River Ancholme, Fiskerton Fen Nature Reserve and part of Bardney Limewoods National Nature Reserve. Opportunities include access improvements, habitat creation and linkages, and historic environment enhancement.

- **3: Lincolnshire Wolds Green Corridor**

This corridor extends from the Limewoods area northwards to the Lincolnshire Wolds AONB, connecting to green corridors 2 (Ancholme) and 5 (Lower Witham & Fens). Key

assets include part of Bardney Limewoods National Nature Reserve, Market Rasen and an Area of Great Landscape Value. Opportunities include habitat creation and linkages, and landscape and historic environment management.

- **4: Upper Witham Green Corridor**

An important green corridor linking GI in and around the south of Lincoln and connecting to green corridors 5 (Lower Witham & Fens) and 7 (Fosdyke). Key assets include the Witham Valley Country Park, which includes Whisby Nature Park, Hartsholme Country Park and Stapleford Wood. Investment in this corridor is crucial as this area is likely to host major growth. Opportunities include new access links, addressing accessible natural greenspace deficiencies and biodiversity enhancement.

- **5: Lower Witham & Fens Green Corridor**

This corridor includes the Lower River Witham floodplain, connecting Lincoln towards the Fens/Wash area, with links to green corridors 2 (Ancholme), 3 (Lincolnshire Wolds), 4 (Upper Witham), 6 (Sleaford), and 7 (Fosdyke). Key assets include important historic sites and valuable wetlands, as well as strategic access routes such as National Cycle Route 1. Opportunities include addressing accessible natural greenspace deficits (particularly around Lincoln) and the re-establishment of wetland habitats.

- **6: Sleaford Green Corridor**

This corridor connects Sleaford with the Lower Witham and Fens Green Corridor (5) and GI around Grantham. Key assets include the River Sleak/Kyme Eau, the National Centre for Craft & Design and Cogglesford Mill. Opportunities include new access routes, grassland restoration and creation of new GI to meet accessible greenspace deficits in and around Sleaford, where growth is planned.

- **7: Fosdyke Green Corridor**

This corridor is an important connection between Lincoln and the Trent Green Corridor (1). Key assets include the Fosdyke Canal and Swanpool Local Nature Reserve. Opportunities include new and improved access, visitor facilities along the Canal and biodiversity enhancement work.

- 3.3.11 The width of the Strategic Green Corridors illustrated schematically on **Figure 1.4a** are indicative; they are not intended to be rigid, and should be responsive to local circumstances. For example, it will be important for the Strategic Green Corridors to, wherever possible, provide adequate space in order to reduce the potential negative “edge effects” on wildlife from surrounding intensive land uses by buffering and extending existing habitats. The Strategic Green Corridors defined by this Study are provisional, and it is intended that they are reviewed, and amended as necessary, in light of Biodiversity Opportunity Mapping (see recommendations for further work in **Section 4.8**) and the proposed Ecological Network Strategy (see **Table 4.1 in Section 4.3**).

Strategic Green Access Links

- 3.3.12 Within and connecting the Strategic Green Corridors, a network of Strategic Green Access Links are intended to provide multi-user, predominantly off-road, strategic access routes for pedestrians and cyclists, linking and integrating residential and business communities across the area to key services, leisure destinations and greenspaces.

3.3.13 The proposed Strategic Green Access Links are as follows:

- **A: Trent Link**

Connects communities and facilities in Gainsborough to the wider countryside and destinations including Newark-on-Trent and the Humber, via the course of the River Trent (a key recreational/leisure asset). New access along some sections of the river would need to be established and existing access upgraded where appropriate.

- **B: Scunthorpe Link**

Connects Laughton Woods (an important accessible natural greenspace site) to the River Trent and southwards to Gainsborough (along the Trent Link). Also provides access to the Chesterfield Canal (Nottinghamshire) to the west and Scunthorpe to the east. New access along the full length of the route would need to be established.

- **C: East Gainsborough Link**

Connects communities within the potential growth locations to the east and south of Gainsborough to local facilities, leisure opportunities/destinations (including the River Trent), greenspaces and public transport services. New access along the full length of the route would need to be established.

- **D: Lincoln Edge North Link**

Connects communities and facilities in Lincoln, via the Lincoln Edge Escarpment, to the countryside north of the city and those villages located along the escarpment. New access along some sections of the route would need to be established and existing access upgraded where appropriate.

- **E: Lincoln – Wolds Links**

Connects communities and facilities in Lincoln to the countryside north-east of the city (including a number of smaller settlements) and destinations including Market Rasen (and the accessible woodlands located to the east of the town), the Wolds and Grimsby. Whilst this Link generally follows the route of National Cycle Route 1, new access along some sections of the route would need to be established and existing access upgraded where appropriate.

- **F: River Ancholme – Louth Link**

Connects communities and facilities in Market Rasen to the wider countryside and destinations including the Ancholme River and the Humber to the north-west, and the Wolds AONB and Louth to east. New access along some sections of the route would need to be created and existing access upgraded, where appropriate.

- **G: Wolds – The Humber Estuary Link**

Connects communities and facilities in Caistor and the Wolds to Lincoln and Market Rasen to the south, and Barton-Upon-Humber and Immingham to the north. New access along some sections of the route would need to be created and existing access upgraded.

- **H: Fosdyke Canal Link**

Connects communities and facilities in Lincoln to the wider countryside to the west of the city (including Saxilby), the River Trent and the wider countryside to the west of the Trent, via the Fosdyke Canal (a key recreational/leisure asset). New access along some sections of the route would need to be created and existing access upgraded, where appropriate.

- **I: Upper Witham Link**

Connects communities and facilities in Lincoln to the countryside to the west/south-west of the city, including the Witham Valley Country Park/accessible natural greenspaces. New access along most of the route would need to be created and existing access upgraded, where appropriate.

- **J: Witham Valley Country Park – Limewoods Link**

Connects communities and facilities in southern Lincoln to the Witham Valley Country Park/accessible natural greenspaces to the west of the city, the wider countryside to the south-east/east of the city (including some smaller settlements), the Lower Witham, the Limewoods area (including accessible woodlands) and National Cycle Route 1. New

access along most of the route would need to be created and existing access upgraded, where appropriate.

- **K: Lincoln Edge South Link**

Connects communities and facilities in Lincoln, via the Lincoln Edge Escarpment, to the countryside south of the city and those villages located along the escarpment. New access along some sections of the route would need to be established and existing access upgraded where appropriate. .

- **L: Lincoln – Sleaford Link**

Connects communities and facilities in Lincoln to the wider countryside to the south-east of the city (including a number of smaller settlements) and Sleaford, via the general alignment of the promoted Spires and Steeples route. New access along some sections of the route would need to be established and existing access upgraded where appropriate. .

- **M: Lower Witham & Fens Link**

Connects communities and facilities in Lincoln to the wider countryside to the east/south-east of the city (including some smaller settlements) and the Fens, along the Lower River Witham/general alignment of National Cycle Route 1. New access along some sections of the route would need to be established and existing access upgraded where appropriate. .

- **N: Lower Witham – Horncastle Link**

Connects communities and facilities in Lincoln (party along the Lower Witham & Fens Link) to the Lower Witham, Fiskerton Fens Nature Reserve/the Limewoods area (and associated accessible woodlands) and Horncastle. New access along the full length of the route would need to be established.

- **O: Grantham – Sleaford – Lower Witham Link**

Connects communities and facilities in Sleaford to the wider countryside and Grantham (and Belton Park) to the south-west, and the River Slea/Kyme Eau, Lower Witham and Horncastle to the north-east. New access along some sections of the route (particularly between Grantham and Sleaford) would need to be established and existing access upgraded where appropriate.

- **P: Sleaford – Spalding Link**

Connects communities and facilities in Sleaford to the wider countryside to the south-east of the town and Spalding. New access along almost the full length of the route would need to be established.

3.3.14 With investment, the Strategic Green Access Links have the potential to link with public transport services to provide an integrated sustainable movement network for Central Lincolnshire that will help reduce reliance on car-use. While the Strategic Green Access Links have the primary function of providing access and recreational route linkages, they also offer opportunities as wildlife corridors to provide biodiversity benefits.

3.3.15 The route alignments of the Strategic Green Access Links illustrated on **Figure 1.4a** are indicative, and their specific configuration should respond to their intended uses and local circumstances.

Urban Green Grids

3.3.16 As illustrated on **Figure 1.4a**, Urban Green Grids are proposed for Gainsborough, Lincoln and Sleaford. These are priority areas with key opportunities for greening of the built environment,

including potential new sustainable urban extensions. The Urban Green Grids comprise multifunctional networks of green (and blue) links and spaces threading through the built environment, weaving together areas where people live and work with public transport networks and the wider countryside. The Urban Green Grids provide urban communities with green areas for recreation and access to nature, a sense of place, education opportunities and help to contribute to sustainable travel by providing safe routes for walking and cycling. Street trees and greenspace help counter the 'heat island effect' of urban areas by providing shade to regulate the micro-climate, and domestic gardens and green roofs/walls provide linkages for wildlife through the built-up areas. With investment and appropriate management, the urban green grids would support a range of benefits for the urban communities, such as:

- Reinforcing local identity and enhancing physical character by shaping existing and future development.
- Maintaining visual amenity and increasing the attractiveness of a locality to create a sense of pride.
- Raising property values and aiding urban regeneration and neighbourhood renewal.
- Boosting the economic potential of tourism, leisure and cultural activities.
- Providing a wide variety of cultural, social and community facilities, including seasonal activities such as fairs, festivals and concerts.
- Protecting historical, cultural and archaeological heritage.
- Contribution to health agendas – e.g. reducing stress levels by providing spaces for formal and informal recreational facilities.
- Providing popular outdoor educational facilities for schools and academic institutions.
- Improving physical and social inclusion including accessibility, particularly for young, disabled and older people.
- Offering networks for walking and cycling and safer routes to schools.
- Raising air quality and moderating extremes of temperatures.
- Protecting and enhancing biodiversity and ecological habitats.
- Incorporating environmental infrastructure to improve water quality and flood control.

The Wider Countryside

3.3.17 While the proposed GI Network for Central Lincolnshire gives particular emphasis to the spatial priorities discussed above, investment in GI provision within other areas that may also have the potential to deliver benefits should be considered where appropriate. Beyond the strategic corridors, opportunities for targeted environmental and access improvements in the wider countryside should be considered to strengthen the multi-functionality of the countryside as part of the overall GI Network. These improvements would complement and support the priority areas for investment within the GI Network, by focusing environmental land management schemes on addressing the needs and opportunities identified in the relevant GI Zones set out in **Volume 2**. For example, these aims could be achieved through:

- Conservation and enhancement of landscape character.
- Enhanced management, protection, accessibility and interpretation of the historic environment and geodiversity resources.

- Habitat enhancement, linkage and creation – including woodlands, wetlands, roadside verges and farmland BAP habitats and species.
- Enhanced connectivity of the local rights of way network to the strategic access route network (including public transport) and to accessible greenspaces to promote sustainable modes of travel.
- Increased opportunities for sustainable local food and renewable energy crops production.

Growth Locations

3.3.18 **Figure 1.4b, Figure 1.4c and Figure 1.4d** illustrate the proposed GI Network for Central Lincolnshire in more detail around Gainsborough, Lincoln and Sleaford respectively in the context of potential directions of growth¹⁶.

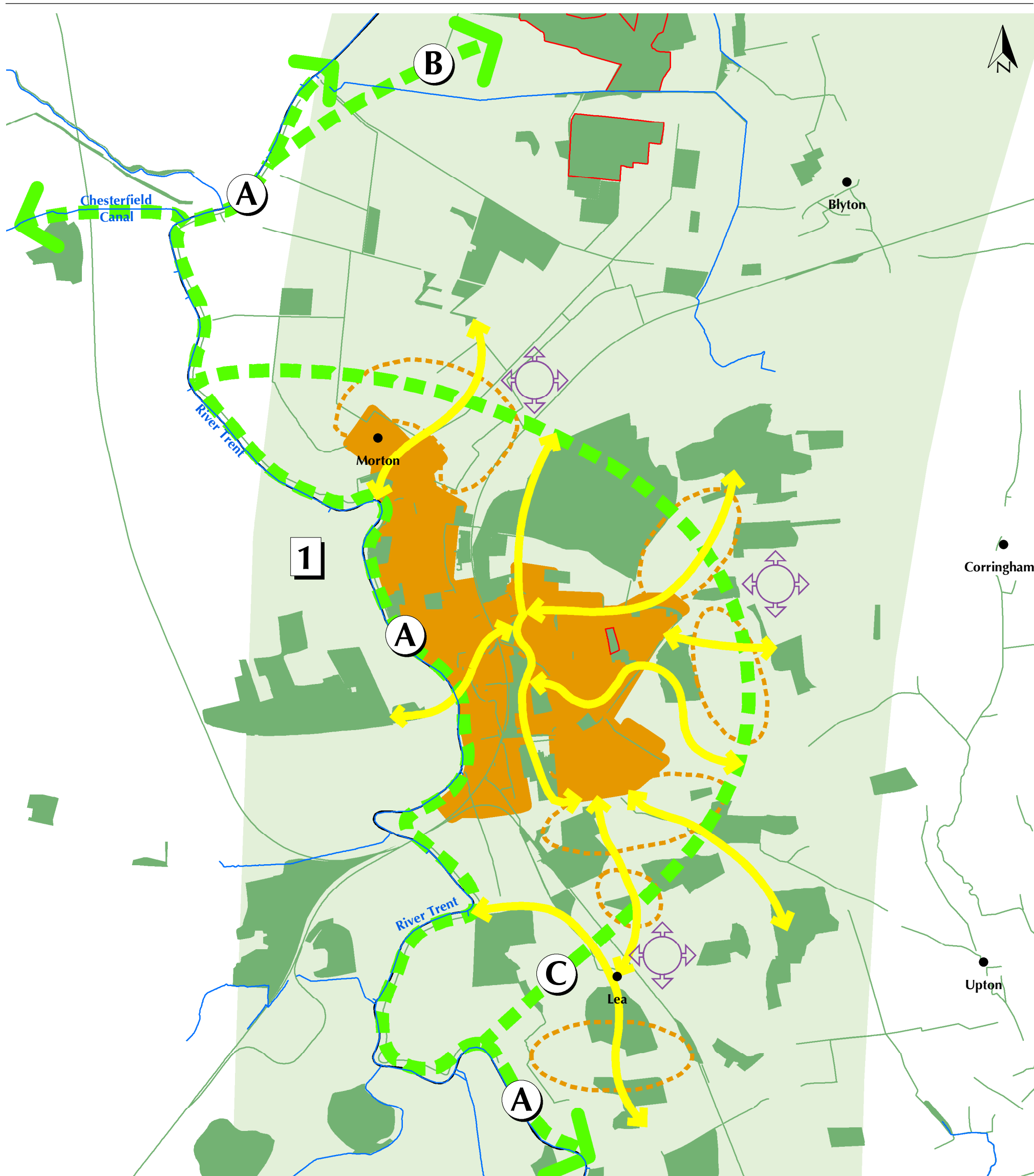
Gainsborough Area

3.3.19 The proposed GI Network for the Gainsborough Area is illustrated on **Figure 1.4b**. The Area lies within the Trent Strategic Green Corridor, a priority area with key opportunities for strategic GI enhancement, linkage and creation – both in West Lindsey District and (to the west of the River Trent) in Bassetlaw District, Nottinghamshire.

3.3.20 Within this Strategic Green Corridor, the East Gainsborough Strategic Green Access Link connects communities and businesses within the potential growth locations to the east and south of Gainsborough to local leisure opportunities/destinations, greenspaces and public transport services. The East Gainsborough Link connects with the Trent Link to the north of the town (connecting with the Scunthorpe Link), which extends south towards Newark and connects with the Fossdyke Canal Strategic Green Access Link to Lincoln.

3.3.21 The Strategic Green Access Links, greenspaces and habitats in the countryside around the town, and also the adjoining villages of Morton and Lea, are connected to the Gainsborough Urban Green Grid by a network of Local Green Links. This network includes local GI linkages with the open space of the 'Gainsborough Escarpment', a prominent north-south feature through the town that affords extensive views both east and west across the Trent Valley. In addition to providing a network of greenspaces and access links, the Gainsborough Urban Green Grid includes green roofs and walls to provide linkages for wildlife. Proposed areas of search for new accessible natural greenspace required to meet the needs of the expanded population are also shown on **Figure 1.4b**. Protection of undeveloped land as settlement breaks between the town and Morton to the north, and between Gainsborough and Lea to the south, provides the opportunity to locate accessible natural greenspace in these areas.

¹⁶ As identified in the Central Lincolnshire Core Strategy Issues and Options Consultation Document. (October 2010, CLJSPU)



A Strategic Green Access Links
Key opportunities for multi-user, predominantly off-road, strategic access routes

- A** Trent Link
- B** Scunthorpe Link
- C** East Gainsborough Link

1 Strategic Green Corridors
Priority areas with key opportunities for strategic GI enhancement, linkage and creation

- 1** Trent Green Corridor

Gainsborough Urban Green Grid
Priority area with key opportunities for greening of the built environment, including potential new sustainable urban extensions

Local Green Links
Key opportunities for local GI linkages

Potential Directions of Growth
(as identified in the Central Lincolnshire Core Strategy Issues and Options Consultation Document, October 2010, CLJSPC)

Wider Countryside
Opportunities for targeted environmental and access improvements

Existing Strategic Greenspace

Existing Accessible Natural Greenspace

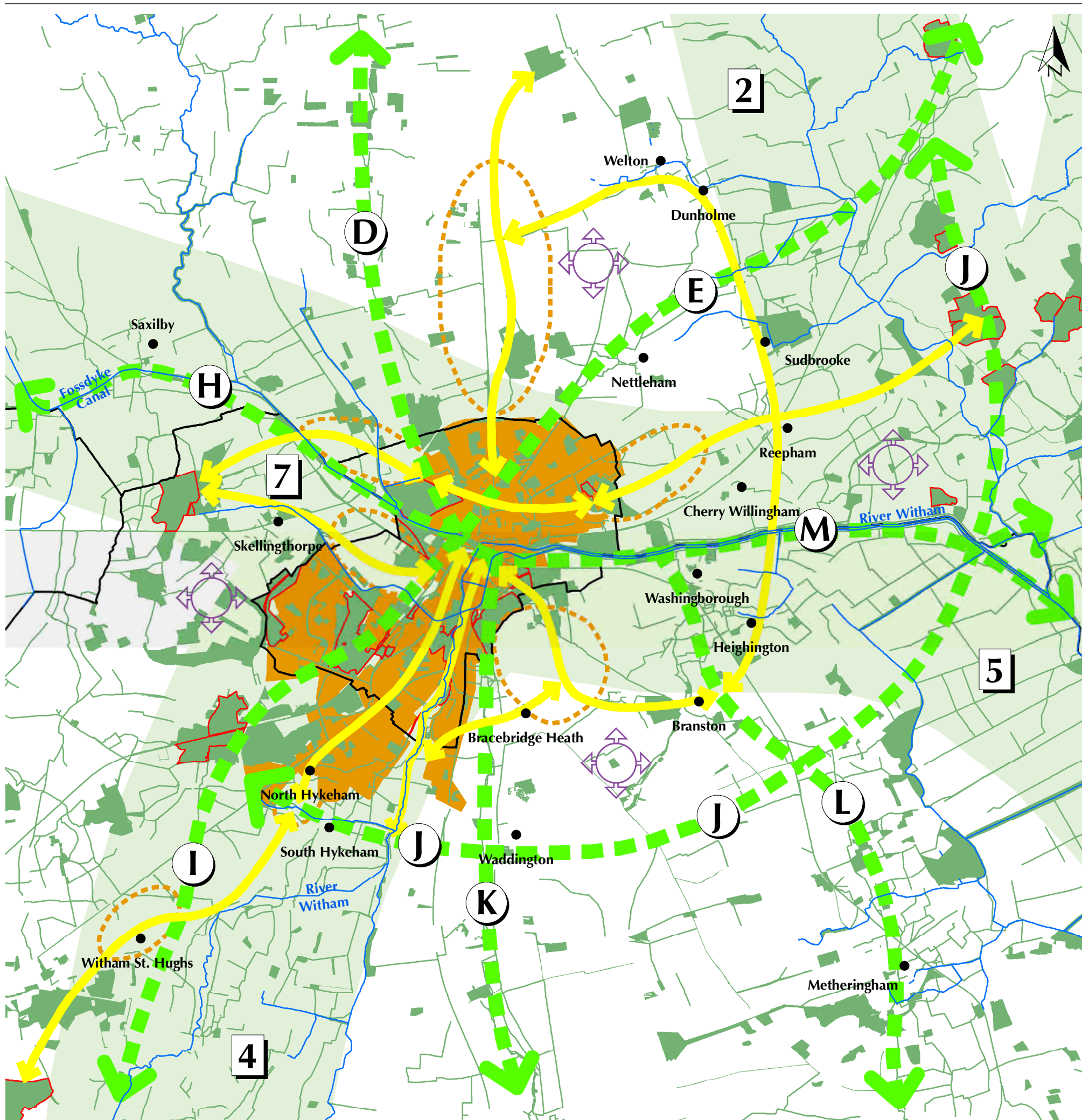
Proposed Areas of Search for New Accessible Natural Greenspace

Main Watercourses

District Boundaries

This GI Network Concept Plan provides a strategic framework for delivery of GI. It is only illustrative and does not necessarily indicate a constraint on development.

0 0.5 1 km



- 2 Strategic Green Corridors**
Priority areas with key opportunities for strategic GI enhancement, linkage and creation
- 2 Ancholme Green Corridor
 - 4 Upper Witham Green Corridor
 - 5 Lower Witham & Fens Green Corridor
 - 7 Fossdyke Green Corridor

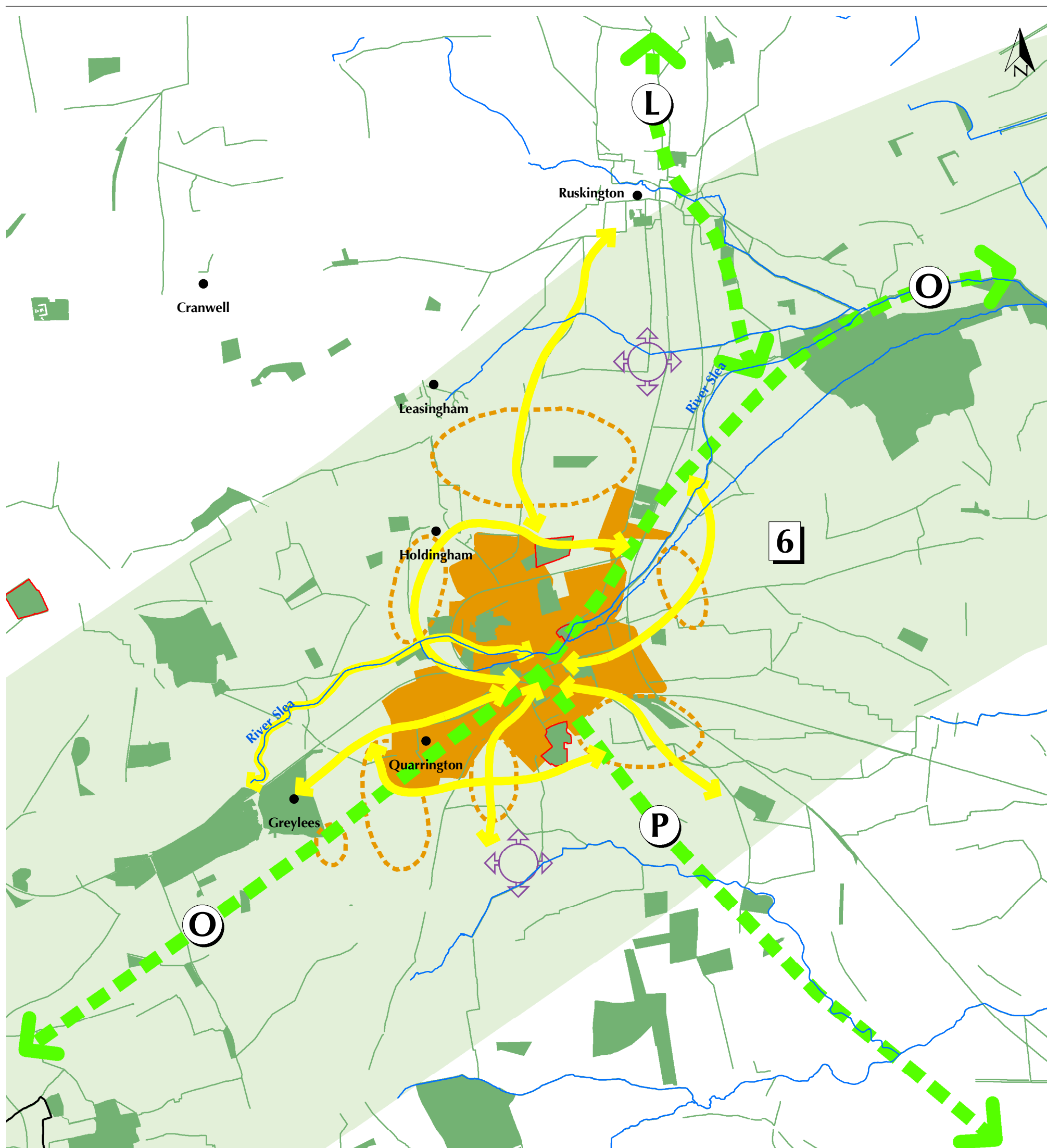
- D Strategic Green Access Links**
Key opportunities for multi-user, predominantly off-road, strategic access routes
- D Lincoln Edge North Link
 - E Lincoln - Wolds Link
 - H Fossdyke Canal Link
 - I Upper Witham Link
 - J Witham Valley Country Link - Limewoods Link
 - K Lincoln Edge South Link
 - L Lincoln - Sleaford Link
 - M Lower Witham & Fens Link

- Lincoln Urban Green Grid**
Priority area with key opportunities for greening of the built environment, including potential new sustainable urban extensions
- Local Green Links**
Key opportunities for local GI linkages
- Potential Directions of Growth**
(as identified in the Central Lincolnshire Core Strategy Issues and Options Consultation Document. October 2010, CLJSPC)

- Wider Countryside**
Opportunities for targeted environmental and access improvements
- Existing Strategic Greenspace**
- Existing Accessible Natural Greenspace**
- Proposed Areas of Search for New Accessible Natural Greenspace**
- Main Watercourses**
- District Boundaries**

This GI Network Concept Plan provides a strategic framework for delivery of GI. It is only illustrative and does not necessarily indicate a constraint on development.

0 1 2 km



① Strategic Green Access Links
Key opportunities for multi-user, predominantly off-road, strategic access routes

- ① Lincoln - Sleeford Link
- ② Grantham - Sleeford - Lower Witham Link
- ③ Sleeford - Spalding Link

⑥ Strategic Green Corridors
Priority areas with key opportunities for strategic GI enhancement, linkage and creation

- ⑥ Sleeford Green Corridor

Sleeford Urban Green Grid
Priority area with key opportunities for greening of the built environment, including potential new sustainable urban extensions

↔ Local Green Links
Key opportunities for local GI linkages

○ Potential Directions of Growth
(as identified in the Central Lincolnshire Core Strategy Issues and Options Consultation Document, October 2010, CLJSPC)

Wider Countryside
Opportunities for targeted environmental and access improvements

Existing Strategic Greenspace

Existing Accessible Natural Greenspace

Proposed Areas of Search for New Accessible Natural Greenspace

— Main Watercourses

This GI Network Concept Plan provides a strategic framework for delivery of GI. It is only illustrative and does not necessarily indicate a constraint on development.

0 0.5 1 km

3.3.22 The protection and enhancement of biodiversity sites, landscape/townscape character and historic environment assets, in line with the needs and opportunities identified in the relevant GI Zones set out in **Volume 2**, are intended to support the GI Network for the Gainsborough Area. These are:

- Zone 1: Blyton and Morton Fens and Carrlands.
- Zone 2: Laughton Wooded Vales.
- Zone 3: Sturton-by-Stow Unwooded Vale.
- Zone 9: Gainsborough Urban Area.
- Zone 10: East Gainsborough Wooded Vales.
- Zone 12: River Trent Floodplain Valley.

3.3.23 In addition to the above, it is also intended that delivery of the GI Network for the Gainsborough Area takes into account the Bassetlaw District Green Infrastructure Strategy for areas to the west of the River Trent.

Lincoln Area

3.3.24 The proposed GI Network for the Lincoln Area is illustrated on **Figure 1.4c**. A number of Strategic Green Corridors meet in the Lincoln Area, reflecting the wide range of opportunities for strategic GI enhancement, linkage and creation:

- Fosdyke Strategic Green Corridor.
- Upper Witham Strategic Green Corridor.
- Lower Witham & Fens Strategic Green Corridor.
- Ancholme Strategic Green Corridor.

3.3.25 Within these Strategic Green Corridors, an extensive network of Strategic Green Access Links connects communities and businesses within Lincoln, and in the ring of 'satellite' villages and potential growth locations around the city, to local leisure opportunities/destinations, greenspaces and public transport services:

- Fosdyke Canal Link – connects Central Lincoln to the Trent Link via Saxilby to the west of the city.
- Lincoln Edge North link – connects Central Lincoln to the countryside north of the city.
- Lincoln-Wolds Links – connects the north of Lincoln to the Lincolnshire Wolds AONB via Nettleham and the countryside to the north-east of the city.
- Upper Witham Link – connects the south of Lincoln, including North and South Hykeham and Witham St Hughs, to greenspaces and countryside to the west and south of the city.
- Witham Valley Country Park-Limewoods Link – connects the south of Lincoln and the Country Park to the countryside within the Limewoods area east of the city, located north of the River Witham.
- Lincoln Edge South Link – connects Central Lincoln to the countryside south of the city.

- Lincoln-Sleaford Link – connects the north-east of Lincoln to the countryside south of the city and Sleaford via Washingborough, Heighington, Branston and Metherringham.
- Lower Witham & Fens Link – connects Central Lincoln to the countryside east of the city.

3.3.26 A network of Local Green Links connects the Lincoln Urban Green Grid to the Strategic Green Access Links, greenspaces and habitats in the countryside around the city. This network includes local GI linkages connecting the city centre with open spaces throughout the built-up area and in the surrounding countryside, including the River Witham corridor in particular. In addition to providing a network of greenspaces and access links, the Lincoln Urban Green Grid includes green roofs and walls to provide linkages for wildlife. Proposed areas of search for new accessible natural greenspace required to meet the needs of the expanded population are also shown on **Figure 1.4c**. Protection of corridors of undeveloped land/countryside as green wedges between the built-up area of Lincoln and the surrounding villages, to safeguard the city's unique setting and character, provides the opportunity to locate accessible natural greenspace in these areas.

3.3.27 The protection and enhancement of biodiversity sites, landscape/townscape character and historic environment assets, in line with the needs and opportunities identified in the relevant GI Zones set out in **Volume 2**, are intended to support the GI Network for the Lincoln Area. These are:

- Zone 3: Sturton-by-Stow Unwooded Vale
- Zone 5: Middle Rasen Unwooded Vale.
- Zone 11: North Lincoln Fringe Limestone Dipslope.
- Zone 13: Northwest Lincoln Fringe Unwooded Vale.
- Zone 14: North Lincoln Urban Area.
- Zone 15: North East Lincoln Fringe Unwooded Vale.
- Zone 16: Apley Wooded Vales.
- Zone 17: West Lincoln Fringe Wooded Vales.
- Zone 18: South Lincoln Urban Area.
- Zone 19: River Witham Floodplain Valley.
- Zone 20: Southeast Lincoln Fringe Limestone Heath.
- Zone 21: Metherringham Fen and Marsh Margin Farmlands.
- Zone 22: Heighington-Helpringham Fens and Carrlands.
- Zone 23: Southwest Lincoln Fringe Unwooded Vale.
- Zone 24: Stapleford Wooded Vales.
- Zone 25: Wellingore Limestone Heath.
- Zone 26: Brant Broughton Unwooded Vale.

Sleaford Area

3.3.28 The proposed GI Network for the Sleaford Area is illustrated on **Figure 1.4d**. The Area lies within the Sleaford Strategic Green Corridor, a priority area with key opportunities for strategic GI enhancement, linkage and creation.

- 3.3.29 Within this Strategic Green Corridor, a network of Strategic Green Access Links connects communities and businesses within the potential growth locations around Sleaford to local leisure opportunities/destinations, greenspaces and public transport services. A Strategic Green Access Link connects Sleaford with Grantham via Greylees to the south-west of the town, and connects north-east to the Lower Witham via the Sleaford Navigation. The Lincoln-Sleaford Strategic Green Access Link connects the north-east of Sleaford to the countryside north of the town via Ruskington, and onwards to Lincoln. A further Strategic Green Access Link connects Sleaford with the countryside south-east of the town and onwards to Spalding.
- 3.3.30 The Strategic Green Access Links, greenspaces and habitats in the countryside around the town are connected to the Sleaford Urban Green Grid by a network of Local Green Links. This network includes local GI linkages connecting the town centre with open spaces along the River Slea corridor/floodplain. In addition to providing a network of greenspaces and access links, the Sleaford Urban Green Grid includes green roofs and walls to provide linkages for wildlife. Proposed areas of search for new accessible natural greenspace required to meet the needs of the expanded population are also shown on **Figure 1.4d**. Protection of corridors of undeveloped land/countryside as green wedges between the built-up areas of Sleaford provides the opportunity to locate accessible natural greenspace in these areas.
- 3.3.31 The protection and enhancement of biodiversity sites, landscape/townscape character and historic environment assets, in line with the needs and opportunities identified in the relevant GI Zones set out in **Volume 2**, are intended to support the GI Network for the Sleaford Area. These are:
- Zone 21: Metherringham Fen and Marsh Margin Farmlands.
 - Zone 25: Wellingore Limestone Heath.
 - Zone 27: Northwest Sleaford Fringe Limestone Scarps and Dipslopes.
 - Zone 28: Sleaford Urban Area.
 - Zone 29: Southeast Sleaford Fringe Fen and Marsh Margin Farmlands.
 - Zone 30: Dembleby and Wilsford Forest Hills and Ridges.

4.0 GREEN INFRASTRUCTURE DELIVERY FRAMEWORK

4.1 General

4.1.1 This section outlines a proposed framework for the delivery of the GI Strategy's vision. The delivery framework includes:

- A set of core principles for guiding GI delivery
- A long-list of strategic GI initiatives and projects.
- Governance and delivery co-ordination arrangements.
- Potential funding sources for GI investment.
- Proposals for embedding GI in spatial planning and development management.
- Options for GI management and maintenance.
- Recommendations for further work to develop the evidence base.
- An outline Action Plan.
- Monitoring and review arrangements.

4.2 Green Infrastructure Delivery Principles

4.2.1 The Central Lincolnshire GI Study aims to promote a deeper understanding of the economic, environmental and social benefits of GI, including the provision of ecosystem services that are essential for human well-being. In doing so, it can help inspire local businesses and decision makers to support investment in GI by recognising the vital role that a multi-functional, high quality GI Network can play in improving the lives, livelihoods and health of local communities throughout Central Lincolnshire.

4.2.2 It is important that all relevant stakeholders adopt a co-ordinated approach to the delivery and management of GI in Central Lincolnshire. In this context, the following overarching core principles¹⁷ are proposed to guide decision-making in relation to the delivery of GI across Central Lincolnshire:

Core Principles for Green Infrastructure Delivery

1. Safeguard the integrity of the GI network through protection, enhancement, creation and management of high quality greenspaces, and provide a net increase in biodiversity.
2. Strengthen the multi-functionality and connectivity of the existing GI network by creating new greenspaces/links that connect city/town centres, urban fringes and the wider countryside.
3. Secure resources to ensure sustainable and long-term management/maintenance of high quality greenspaces in order to continue delivering benefits for future generations.
4. Celebrate successful GI projects and ensure that good practice is widely disseminated and promoted.

¹⁷ These principles are reflected in the Green Infrastructure Guide for the East Midlands (2008)

5. Adapt to and mitigate against the effects of climate change through innovative GI design solutions, including sustainable water management and urban cooling measures.
6. Retrofit GI into established built environments within Gainsborough, Lincoln and Sleaford, and other settlements within Central Lincolnshire.
7. Embed GI into the masterplanning of large-scale new developments within growth locations.
8. Sustain the distinctive local character of Central Lincolnshire by managing townscape and landscape change to protect and enhance sensitive areas/features, including historic environment assets.
9. Reverse the decline in biodiversity through investment in extensive ecological networks of new and enhanced habitats to reduce fragmentation and increase opportunities for species dispersal.
10. Deliver lasting social inclusion, community development and lifelong learning benefits for people through the use and maintenance of local GI.
11. Ensure strong partnership working arrangements are in place to involve all relevant stakeholders in the design, approval and funding/delivery of local GI initiatives/projects.

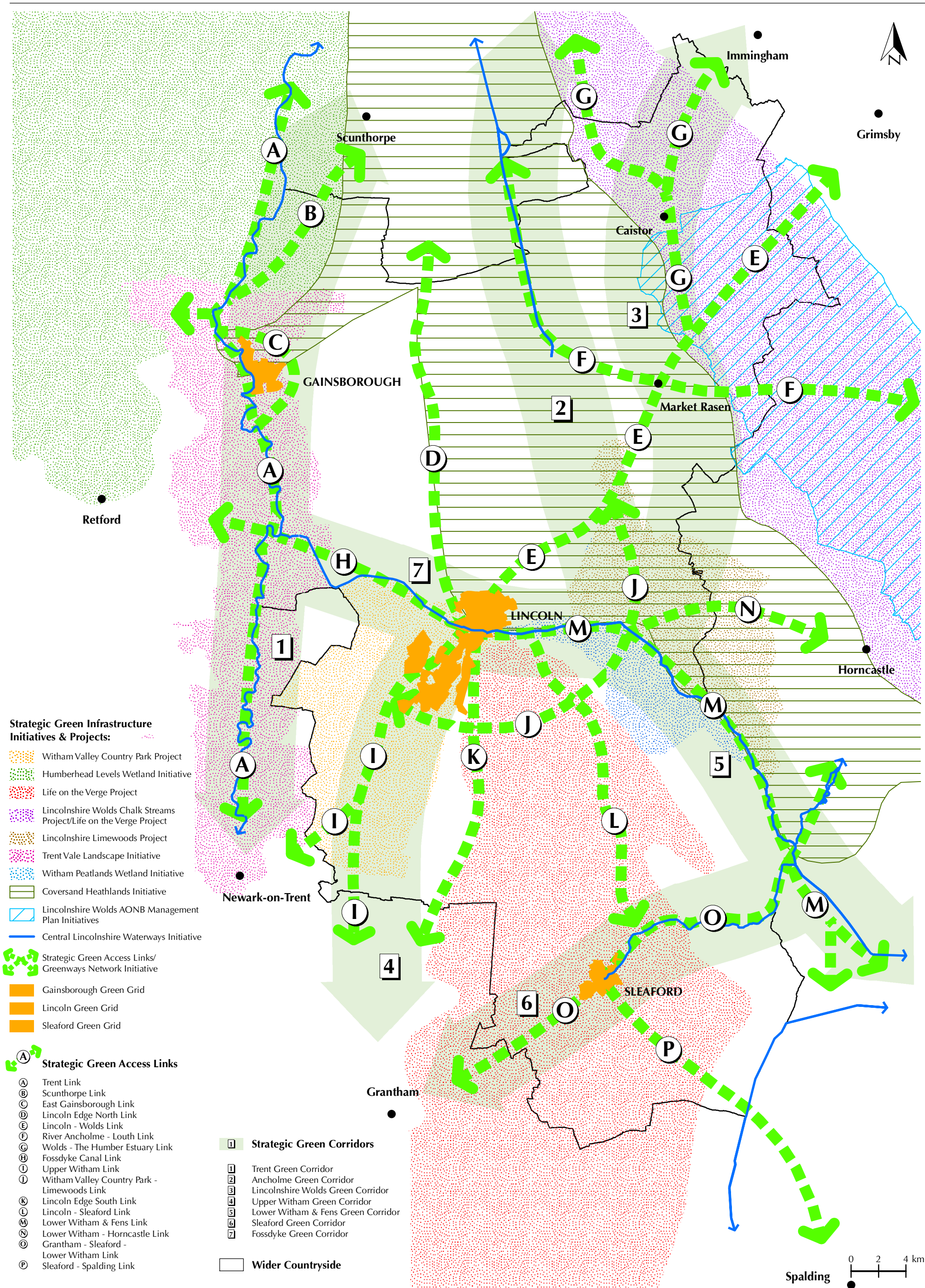
4.3 Strategic Green Infrastructure Initiatives and Projects

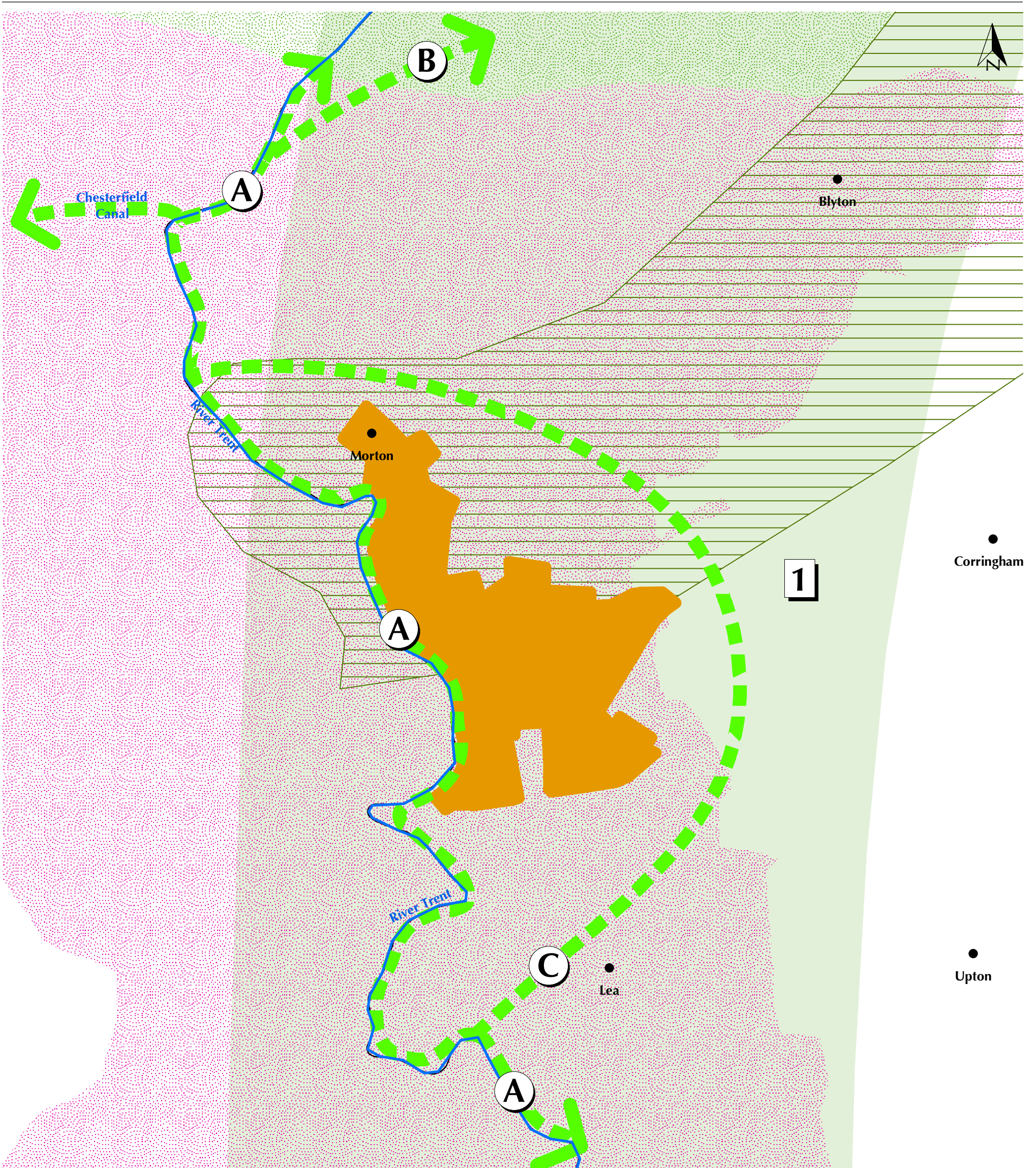
4.3.1 Following stakeholder consultation, a long-list of strategic GI initiatives/projects considered to have potential to contribute to the delivery of the GI Strategy's vision has been identified as presented in **Table 4.1** (and indicative locations are shown on **Figures 1.5a-d**). This list is not exhaustive, but provides an indication of the scale and nature of GI provision required to support sustainable growth and respond to climate change within Central Lincolnshire.

4.3.2 For the purposes of this Study, a 'strategic' GI initiative/project is one that is clearly of value to more than a part of Central Lincolnshire, facilitates a landscape-scale approach to managing the natural environment, and/or contributes to delivery of GI needed to support sustainable communities and economic development in growth areas.

4.3.3 **Table 4.1** contains the following information:

- **Ref:** The unique reference number for the initiative/project.
- **Name:** The unique name for the initiative/project. In the case of proposed initiatives/projects, their names are provisional working titles for the purposes of the Study only.
- **Green Infrastructure Network Components:** The components of the GI Network that the GI initiative/project will contribute to are indicated as follows:
 - * **Strategic Green Corridor;**
 - * **Strategic Green Access Link;**
 - * **Urban Green Grid;** and
 - * **Wider Countryside.**
- **Green Infrastructure Functions:** The functions that each GI initiative/project is designed to deliver are indicated as follows:



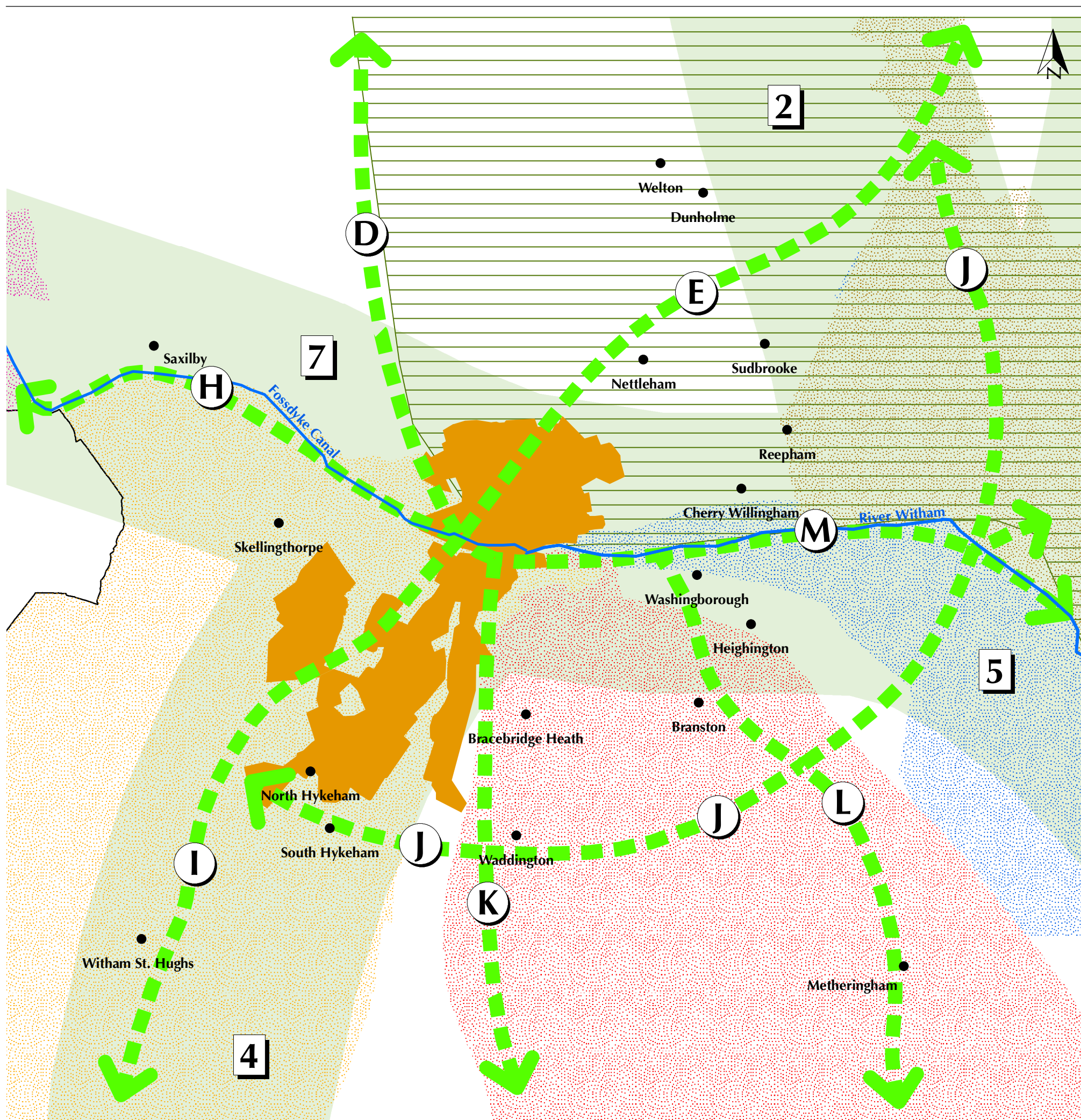


Strategic Green Infrastructure Initiatives & Projects:

- Humberhead Levels Wetland Initiative
- Trent Vale Landscape Initiative
- Coversand Heathlands Initiative
- Central Lincolnshire Waterways Initiative
- Strategic Green Access Links/ Greenways Network Initiative
- Gainsborough Green Grid

- (A)** Strategic Green Access Links
 - (A)** Trent Link
 - (B)** Scunthorpe Link
 - (C)** East Gainsborough Link
- (1)** Strategic Green Corridors
 - (1)** Trent Green Corridor
- Wider Countryside

0 0.5 1 km



Strategic Green Infrastructure Initiatives & Projects:

- Witham Valley Country Park Project
- Life on the Verge Project
- Lincolnshire Limewoods Project
- Witham Peatlands Wetland Initiative
- Coversand Heathlands Initiative
- Central Lincolnshire Waterways Initiative
- Strategic Green Access Links/ Greenways Network Initiative
- Lincoln Green Grid

Strategic Green Access Links

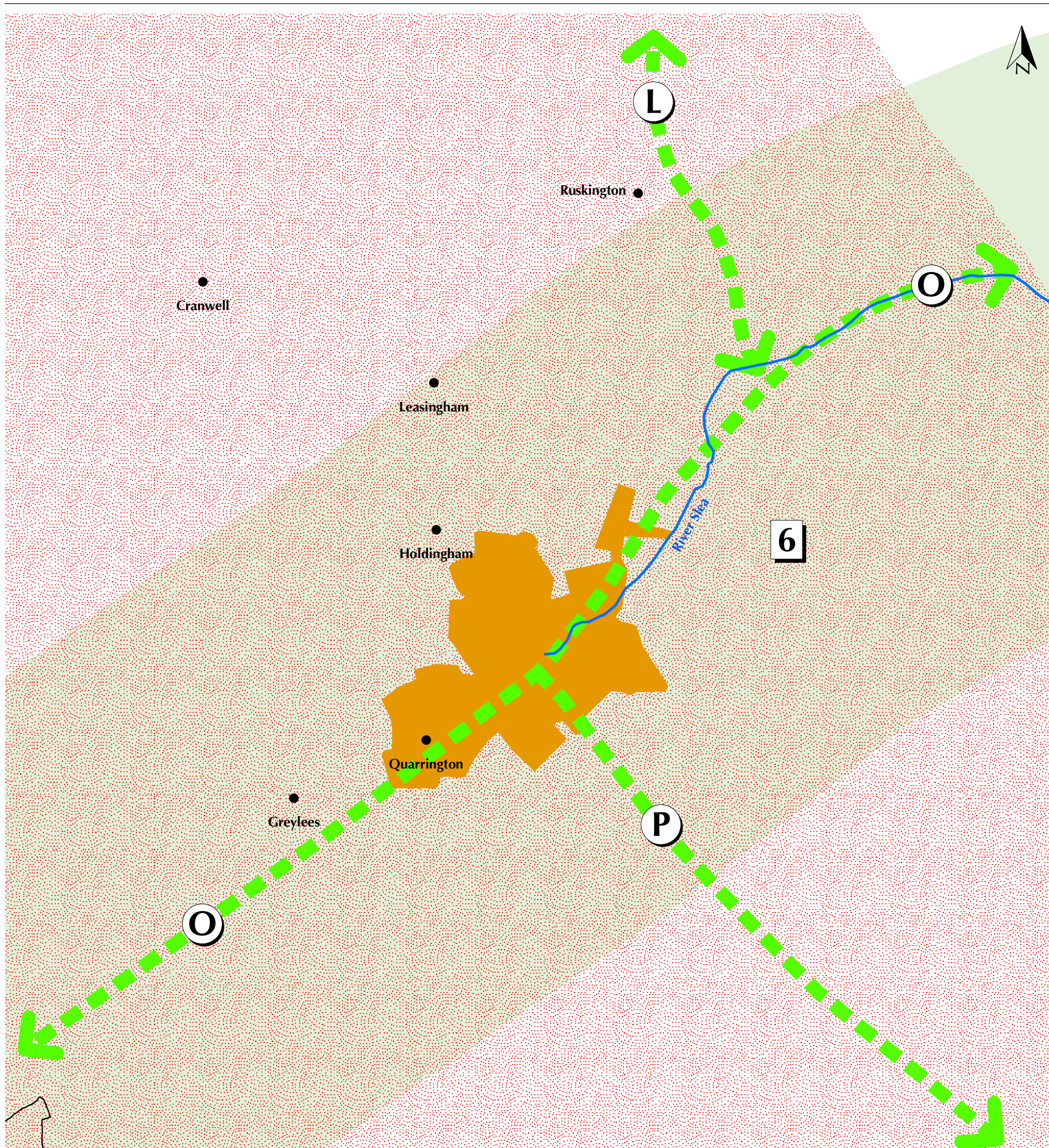
- Lincoln Edge North Link
- Lincoln - Wolds Link
- Fossdyke Canal Link
- Upper Witham Link
- Witham Valley Country Link - Limewoods Link
- Lincoln Edge South Link
- Lincoln - Sleaford Link
- Lower Witham & Fens Link

Strategic Green Corridors

- Ancholme Green Corridor
- Upper Witham Green Corridor
- Lower Witham & Fens Green Corridor
- Fossdyke Green Corridor

Wider Countryside

0 1 2 km



Strategic Green Infrastructure Initiatives & Projects:

Life on the Verge Project

Central Lincolnshire Waterways Initiative

Strategic Green Access Links/
Greenways Network Initiative

Sleaford Green Grid

Strategic Green Access Links

Lincoln - Sleaford Link

Grantham - Sleaford -
Lower Witham Link

Sleaford - Spalding Link

Strategic Green Corridors

Sleaford Green Corridor

Wider Countryside

0 0.5 1 km

- * **Biodiversity** – wildlife habitat provision, linkage and enhancement;
 - * **Landscape** – landscape/townscape setting for development, including historic context;
 - * **Access & Recreation** – sustainable access, recreation, movement and leisure, and access to nature;
 - * **Energy & Food** – sustainable local energy production/conservation, food production and productive landscapes;
 - * **Climate Change** – sustainable resource management and climate change adaptation/mitigation (flood storage and attenuation, water resource management, air quality management, countering the 'heat island' effect of urban areas, etc).
- **Need:** A concise summary of the identified need/justification for the initiative/project.
 - **Status:** The status of the initiative/project is identified as 'Existing' or 'Proposed'.
 - **Description:** An outline summary description of the general scope of the initiative/project.

Table 4.1 – Long-list of Strategic GI Initiatives and Projects

Ref	Name	GI Network Components	GI Functions	Need	Status	Description
1	Witham Valley Country Park Project	Strategic Green Corridors <ul style="list-style-type: none"> Upper Witham (4) Fosseydyke Canal (7) Strategic Green Access Links <ul style="list-style-type: none"> Fosseydyke Canal (H) Upper Witham (I) Witham Valley Country Park -Limewoods (J) Lincoln Urban Green Grid	<ul style="list-style-type: none"> Biodiversity Landscape Access & Recreation Climate Change 	Project initiated in 2008 by the CL Partnership/GI Steering Group in order to address both the needs of existing residents and future needs arising from the growth of Lincoln for accessible natural greenspace and outdoor recreation facilities.	Existing	<p>This project, which spans over 19,500 ha (all of which falls within Central Lincolnshire), aims to deliver a sub-regional country park with the vision of creating of a sustainable, accessible network of managed outdoor spaces which provides a diverse range of high quality experiences for the enjoyment of residents and visitors. Its aims include to conserve, protect and enhance the built and natural environment, and to provide recreational space and leisure facilities for residents. Within the Witham Valley Country Park area there will be existing and potential new sites (with opportunities for GI sought through the Minerals & Waste Development Framework) to the west and south of Lincoln as well as within Lincoln (e.g. Skellingthorpe Old Wood, Hartsholme and Whisby). Improved connectivity will be achieved with the creation of better physical links between areas of the Park, such as new cycle tracks and footpaths. Awareness of the Country Park will be raised by joined-up marketing activity and robust signage.</p> <p>The Country Park will offer many opportunities to enhance tourism in the immediate and surrounding areas. (see the following website for further details: http://withamvalleypark.co.uk/)</p>
2	Humberhead Levels Initiative	Strategic Green Corridor <ul style="list-style-type: none"> Trent (1) 	<ul style="list-style-type: none"> Biodiversity Landscape Access & 	Initiative initiated by a partnership of organisations (The Humberhead Levels	Existing	This initiative, which in its entirety spans over 200,000ha (only a very small part of which falls within Central Lincolnshire),

Ref	Name	GI Network Components	GI Functions	Need	Status	Description
		Strategic Green Access Links <ul style="list-style-type: none"> Trent (A) Scunthorpe (B) Wider Countryside	Recreation <ul style="list-style-type: none"> Climate Change 	Partnership which includes three Wildlife Trusts, the RSPB, three Councils, three Drainage Boards and two Government Agencies) working together with a united vision, coordinating the environmental work necessary to keep the Humberhead Levels special.		provides a framework in which to deliver the Humberhead Levels Partnership's vision to create an internationally renowned, unique network of wetlands in a predominantly agricultural landscape, whilst supporting thriving communities and wildlife. One of its key aims is to work with local businesses, landowners, communities and other organisations to achieve sustainable land management practices within the area by advising and assisting landowners and increasing the take up of environmental stewardship schemes. The project also includes the identification and implementation of practical wetland improvement works, including pond creation and restoration. (see the following websites for further details: http://www.wildlifetrusts.org/living-landscape/schemes/humberhead-levels and http://www.ywt.org.uk/node/4006)
3	Life on the Verge Project	Strategic Green Corridors <ul style="list-style-type: none"> Lincolnshire Wolds (3) Sleaford (6) Wider Countryside	<ul style="list-style-type: none"> Biodiversity Landscape 	Project initiated in 2008 by The Lincolnshire Wildlife Trust to take forward elements of the Living Landscape initiative to restore calcareous grassland in the Southern Lincolnshire Edge/Kesteven Uplands. Road verges represent a vital opportunity to link the few remaining patches of species-rich grassland across the landscape. Extended to the Wolds in 2011, this project ties in with the Lincolnshire Wolds AONB Management	Existing	This project, which in its entirety spans over 210,000ha (only a third of which falls within Central Lincolnshire), focuses on roadside verges and aims to identify, conserve, enhance and extend the network of limestone grassland in Lincolnshire (projects currently taking place in the Southern Lincolnshire Edge/Kesteven Uplands and Lincolnshire Wolds National Character Areas). Much of the remaining resource of such grassland in these areas is located on roadside verges. The project includes carrying out surveys of roadside verges, identifying verges suitable for designation as Local Wildlife Sites, providing advice

Ref	Name	GI Network Components	GI Functions	Need	Status	Description
				Plan.		to landowners, and carrying out practical habitat management and habitat creation. Life on the Verge in the Southern Lincolnshire Edge/Kesteven Uplands National Character Areas is also a subset of Living Landscape aspirations for limestone grassland conservation, restoration and re-creation away from verges. Advisory work with mineral operators has taken place as well as work with Natural England on targeting HLS to calcareous grassland. (see the following website for further details: http://www.lifeontheverge.org.uk/)
4	Lincolnshire Wolds Chalk Streams Project	Strategic Green Corridor • Lincolnshire Wolds (3) Wider Countryside	<ul style="list-style-type: none"> • Biodiversity • Landscape • Climate Change 	Project initiated in 2004 by a partnership of organisations (Environment Agency, Lincolnshire Wolds Countryside Service, Natural England, Lincolnshire Wildlife Trust, Anglian Water and the Wild Trout Trust) to conserve and enhance the Lincolnshire Wolds chalk streams which constitute a nationally important resource. This project ties in with the Lincolnshire Wolds AONB Management Plan.	Existing	This project, which in its entirety spans over 85,000ha (a quarter of which falls within Central Lincolnshire), aims to ensure that the nature conservation, landscape, community and economic features and interests associated with chalk streams in the Lincolnshire Wolds are conserved and enhanced. The Project provides advice to land managers and other relevant individuals and organisations on the management and restoration of chalk streams and includes a demonstration site on the Waithe Beck at Stainton-le-Vale near Market Rasen. (see the following website for further details: http://www.lincswolds.org.uk/chalkstreams.htm)
5	Lincolnshire Limewoods Project	Strategic Green Corridors • Ancholme (2) • Lincolnshire Wolds (3) • Lower Witham and Fens (5) Strategic Green Access	<ul style="list-style-type: none"> • Biodiversity • Landscape • Access & Recreation 	Project initiated in 2005 by the Limewoods Partnership to protect, enhance and promote the natural and historic landscapes and features of the nationally important Lincolnshire Limewoods.	Existing	This project, which in its entirety spans over 16,000ha (half of which falls within Central Lincolnshire), has three main areas of work: <ul style="list-style-type: none"> • Access, including improving visitor access to woodlands and historic sites and creating new easy-access routes

Ref	Name	GI Network Components	GI Functions	Need	Status	Description
		Links <ul style="list-style-type: none"> Lincoln-Wolds (E) Witham Valley Country Park-Limewoods (J) Lower Witham and Fens (M) Lower Witham-Horncastle (N) 				at key visitor sites; <ul style="list-style-type: none"> Education and enjoyment, including developing gateway sites a key locations across the Limewoods and providing a programme of events, activities and workshops; and Heritage management, including improved habitat management, creation of new habitat links and support for local history projects (see habitat management and creation mapping). (see the following website for further details: http://microsites.lincolnshire.gov.uk/Limewoods)
6	Trent Vale Landscape Initiative	Strategic Green Corridor <ul style="list-style-type: none"> Trent (1) Strategic Green Access Links <ul style="list-style-type: none"> Trent (A) Scunthorpe (B) East Gainsborough (C) Fosdyke Canal (H) Gainsborough Urban Green Grid Wider Countryside	<ul style="list-style-type: none"> Biodiversity Landscape Access & Recreation Energy & Food 	Initiative initiated by the Trent Vale Landscape Partnership (delivery phase started in 2010), under the umbrella of The OnTrent, to conserve, enhance and celebrate the cultural identity of the Trent Vale between Newark and Gainsborough.	Existing	This initiative, which in its entirety spans over 40,000ha (a quarter of which falls within Central Lincolnshire), aims to deliver a number of projects focused on the communities, habitats and heritage of the area – including archaeological investigations, creation of a Trent Vale grazing herd renovation of a key heritage building, conservation of wildlife habitats, a small grants scheme for community groups and farmers, education work, improved moorings and fishing pegs, heritage festivals and visitor guides. Delivery of projects to be informed by the Trent Floodplain Biodiversity mapping commissioned by the On Trent Partnership. (see the following websites for further details: http://trentvale.wordpress.com and http://www.ontrent.org.uk/site/projects/trent-vale)
7	Witham Peatlands Wetland	Strategic Green Corridors <ul style="list-style-type: none"> Ancholme (2) Lower Witham and Fens 	<ul style="list-style-type: none"> Biodiversity Landscape Access & 	Initiative identified (within the context of The Fens National Character Area as a whole) to	Proposed	This initiative, which spans over 6,200ha (all of which falls within Central Lincolnshire), aims to re-create

Ref	Name	GI Network Components	GI Functions	Need	Status	Description
	Initiative	(5) Strategic Green Access Links <ul style="list-style-type: none"> Witham Valley Country Park-Limewoods (J) Lower Witham and Fens (M) Wider Countryside	Recreation <ul style="list-style-type: none"> Climate Change 	restore, enhance, recreate and connect habitats to help revert habitat decline and fragmentation and reconnect people with the natural environment in a key wetland area identified by the Lincolnshire Wildlife Trust Wetland Opportunity mapping project.		landscape-scale wetlands with additional benefits including flood risk management, carbons sequestration and access to nature. It covers the northern extremity of the Fens which contains extensive areas of remaining deep peat and thus presents great potential for the re-establishment of multi-functional wetland habitats.
8	Coversand Heathlands Initiative	Strategic Green Corridors <ul style="list-style-type: none"> Trent (1) Ancholme (2) Lincolnshire Wolds (3) Lower Witham & Fens (5) Strategic Green Access Links <ul style="list-style-type: none"> Scunthorpe (B) East Gainsborough (C) Lincoln Edge North (D) Lincoln-Wolds (E) River Ancholme-Louth (F) Witham Valley Country Park-Limewoods (J) Lower Witham & Fens (M) Lower Witham-Horncastle (N) Wider Countryside	<ul style="list-style-type: none"> Biodiversity Landscape Climate Change 	A partnership initiative, funded for five years from 2003, involving Natural England, Lincolnshire Wildlife Trust, North Lincolnshire Council, Forest Enterprise, Lincolnshire County Council and West Lindsey District Council, to restore and re-create Coversands heathlands to help reverse habitat decline and fragmentation	Existing	This initiative is continuing management of Coversands heathlands and additional habitat restoration/re-creation. (see the following website for further details: http://lincstrust.org.uk/conservation/article.php?id=12)

Ref	Name	GI Network Components	GI Functions	Need	Status	Description
9	Lincolnshire Wolds AONB Management Plan Initiatives	Strategic Green Corridors <ul style="list-style-type: none"> Lincolnshire Wolds (3) Strategic Green Access Links <ul style="list-style-type: none"> Lincoln – Wolds (E) River Ancholme –Louth (F) Wolds- The Humber Estuary (G) Wider Countryside	<ul style="list-style-type: none"> Biodiversity Landscape Access & Recreation Energy & Food Climate Change 	The statutory Wolds AONB management Plan 2012-2017 has been drafted by the Lincolnshire Wolds Joint Advisory Committee, the AONB partnership of 22 organisations, and the Lincolnshire Wolds Countryside Service in response to the need to effectively manage the Wolds in the National Interest.	Existing	<p>Approximately a quarter of the designated Wolds AONB is within Central Lincolnshire and includes the Chalk Wolds and North West Scarp character areas. The five key aims of the Management Plan are to sustain and enhance:</p> <ul style="list-style-type: none"> The Lincolnshire Wolds’ natural beauty and its landscape character Farming and land management in the Wolds as the primary activities in maintaining its character, landscape and biodiversity Recreational, tourism and interpretive activities and opportunities appropriate to the area The economic and social base of the Wolds including the development and diversification of enterprises appropriate to the area Partnerships between organisations, the local community, landowners and others with an interest in the Wolds. <p>(see the following website for further details: http://www.lincswolds.org.uk/managmentplan.htm)</p>
10	Central Lincolnshire Waterways Initiative	Strategic Green Corridors <ul style="list-style-type: none"> Trent (1) Ancholme (2) Upper Witham (4) Lower Witham and Fens (5) Sleaford (6) Fosdyke Canal (7) Strategic Green Access links <ul style="list-style-type: none"> Trent (A) 	<ul style="list-style-type: none"> Biodiversity Landscape Access & Recreation Energy & Food Climate Change 	Initiative identified to assist with the delivery of the Lincolnshire Waterways Partnership’s Development Framework for Lincolnshire’s Waterways (2009-18), which promotes a vision that brings together economic, community and environmental issues and raises the profile of the	Proposed	This initiative aims to deliver a range of projects focused on Central Lincolnshire’s navigable waterways (River Ancholme, River Slea, River Trent, River Witham, Fosdyke Canal) under the following themes: improving the existing resource; extending the network; developing regional links; developing recreational use of the network; promoting the waterways; urban and rural regeneration; engaging with local communities; and

Ref	Name	GI Network Components	GI Functions	Need	Status	Description
		<ul style="list-style-type: none"> River Ancholme-Louth (F) Fossdyke Canal (H) Lower Witham(M) Lower Witham-Horncastle (N) Upper Witham (I) Grantham-Sleaford-Lower Witham (O) <p>Gainsborough, Lincoln & Sleaford Urban Green Grids</p>		Lincolnshire Waterways as a tourist destination for a variety of leisure uses.		<p>developing the partnership. Potential projects within Central Lincolnshire include:</p> <ul style="list-style-type: none"> <u>Developing and promoting circular routes</u> linking waterways with local settlements, other tourist attractions, bus routes and railway stations; <u>Developing new waterway infrastructure, along the Fossdyke Canal</u>, in the Cherry Willingham area and at Chapel Hill, to provide a variety of facilities for boaters, anglers and other users; <u>Developing major new waterway links</u> e.g. between the River Witham and the River Ancholme and between the Witham and the Fens; and <u>Developing/improving the Torksey Viaduct (Listed Grade II* bridge)</u> to provide a traffic-free, multi user crossing over the River Trent (facilitating long distance footpath/cycle links through and between Lincolnshire and Nottinghamshire).
11	Lincolnshire Flood Risk and Drainage Management Framework Initiative	<p>Strategic Green Corridors</p> <ul style="list-style-type: none"> Trent (1) Ancholme (2) Upper Witham (4) Lower Witham and Fens (5) Sleaford (6) Fossdyke Canal (7) <p>Gainsborough, Lincoln & Sleaford Urban Green Grids</p>	<ul style="list-style-type: none"> Biodiversity Landscape Access & Recreation Climate Change 	Initiative to ensure delivery of drainage and flood risk management solutions in line with GI objectives for addressing the implications of climate change, including the Central Lincolnshire area.. Partners to the initiative include Local Authorities at County and District levels, EA, IDBs, and Water	Existing	<p>This Lincolnshire initiative includes the delivery of appropriate options and locations for flood storage and other flood risk management solutions within Central Lincolnshire in line with opportunities for improving the natural state of rivers and their habitats and delivery of other GI benefits. Current Projects include:</p> <ul style="list-style-type: none"> Lincolnshire Total Environment initiative to review existing structures

Ref	Name	GI Network Components	GI Functions	Need	Status	Description
				Companies		and organisational resources in support of improving flood risk management within Lincolnshire. <ul style="list-style-type: none"> • Upper Witham Strategy • Local Flood Risk Management Strategy
12	Central Lincolnshire Sports and Play Initiative	Central Lincolnshire Wide	<ul style="list-style-type: none"> • Biodiversity • Access & Recreation 	Initiative identified to enhance existing and/or provide new sport and play facilities to address current and future needs, in line with the Lincolnshire County Sports Facilities Framework, City of Lincoln Council's Leisure Strategy, and County and Local Authority Play Strategies.	Proposed	This initiative aims to deliver a range of new/enhanced sports and play facilities across Central Lincolnshire to meet current and future needs and encourage children, young people and adults to become more active. As part of delivering this initiative, consideration will be given to opportunities to enhance biodiversity.
13	Central Lincolnshire Community Renewable Energy Infrastructure Initiative	Central Lincolnshire Wide	<ul style="list-style-type: none"> • Energy & Food • Climate Change 	Initiative identified to contribute to tackling climate change by reducing carbon emissions through encouraging local renewable energy infrastructure.	Proposed	This initiative aims to embed the generation of renewables, such as biomass, wind and solar, into the GI Network to supply individual local communities by exploring the potential for decentralised energy and micro-renewables to meet Central Lincolnshire's energy needs through community-based schemes.
14	Central Lincolnshire Local Food Production Initiative	Central Lincolnshire Wide	<ul style="list-style-type: none"> • Biodiversity • Access & Recreation • Energy & Food • Climate Change 	Initiative identified to reduce food miles/carbon footprint and provide opportunities for food production by local communities to meet local demand and build a more sustainable food supply chain.	Proposed	This initiative builds on the existing 'Tastes of Lincolnshire' project and aims to deliver a range of projects focused on local food production (e.g. allotments, community orchards and gardens and kitchen gardens in schools). In determining projects, consideration will be given to combining food production with other GI functions such as energy production, access and recreation and

Ref	Name	GI Network Components	GI Functions	Need	Status	Description
15	Central Lincolnshire Ecological Network Strategy	Central Lincolnshire Wide	<ul style="list-style-type: none"> Biodiversity Climate Change 	Strategy identified to address the landscape scale biodiversity issues of habitat loss and fragmentation across Central Lincolnshire. The creation of the ecological network will be a long-term process that is likely to take several decades to complete, but is fundamental to meeting local and regional biodiversity targets.	Proposed	<p>biodiversity.</p> <p>This Strategy aims to identify and map ecological networks for Central Lincolnshire. This is to be informed by Biodiversity Opportunity Mapping (see Further Work recommendations - paragraph 4.8.4). Many of Central Lincolnshire's natural and semi-natural habitats have been reduced to small remnants isolated from each other and surrounded by relatively inhospitable land uses, reducing biodiversity and increasing vulnerability. The overall aim of the Ecological Networks Strategy is to promote connectivity at the landscape-scale between core areas of existing clusters of designated wildlife sites, thus allowing dispersal of wildlife in response to climate change and other factors. To achieve this, restoration and re-creation of priority habitats outside of the core areas will also be required, together with provision of wildlife corridors and stepping stones secured through local green infrastructure improvements, including opportunities provided in association with new development.</p>
16	Strategic Green Access Links/ Greenways Network Initiative	Strategic Green Access Links <ul style="list-style-type: none"> Trent Link (A) Scunthorpe Link (B) East Gainsborough Link (C) Lincoln Edge North Link (D) Lincoln-Wolds Link (E) 	<ul style="list-style-type: none"> Access & Recreation Climate Change 	Initiative identified to promote walking and cycling and improve connectivity between the main settlements/focus for growth, destinations/facilities and the wider countryside in order to deliver the aims of Lincolnshire's Local Transport Plan and Countryside Access	Proposed	This initiative aims to create a network of strategic green access links/greenways intended to provide multi-user, predominantly off-road strategic access routes, linking and integrating residential and business communities across the area to key services, leisure destinations and greenspaces.

Ref	Name	GI Network Components	GI Functions	Need	Status	Description
		<ul style="list-style-type: none"> • River Ancholme-Louth Link (F) • Wolds-the Humber Estuary Link (G) • Fossdyke Canal Link (H) • Upper Witham Link (I) • Witham Valley Country Park-Limewoods Link (J) • Lincoln Edge South Link (K) • Lincoln-Sleaford Link (L) • Lower Witham & Fens Link (M) • Lower Witham-Horncastle Link (N) • Grantham-Seaford-Lower Witham Link (O) • Sleaford-Spalding Link (P) 		and Rights of Way Improvement Plan.		
17	Gainsborough Green Grid Initiative	Urban Green Grids	<ul style="list-style-type: none"> • Biodiversity • Landscape • Access & Recreation • Energy & Food • Climate Change 	Initiative identified to support the sustainable regeneration and development of Gainsborough, over the next 15-20 years.	Proposed	Development of a coherent vision and delivery framework for the creation of a multifunctional network of interlinked high quality greenspaces that connect Gainsborough's town centre, public transport hubs, the River Trent and the surrounding countryside with employment and residential uses in growth locations. The Green Grid Initiative will be delivered through the masterplanning process for the Gainsborough Area. Potential GI projects include: embedding/ retrofitting GI into the built environment (e.g. through incorporation of green roofs and green walls into buildings, long term maintenance of street trees, provision of

Ref	Name	GI Network Components	GI Functions	Need	Status	Description
						sustainable urban drainage systems, temporary use of vacant plots as greenspaces for growing food, relaxation/recreation and play); providing new greenspaces – with a particular emphasis on accessible natural greenspace; enhancing biodiversity, providing local green links; and developing a Greenspace Strategy.
18	Lincoln Green Grid Initiative	Urban Green Grids	<ul style="list-style-type: none"> • Biodiversity • Landscape • Access & Recreation • Energy & Food • Climate Change 	Initiative identified to support the sustainable regeneration and development of Lincoln, over the next 15-20 years.	Proposed	Development of a coherent vision and delivery framework for the creation of a multifunctional network of interlinked high quality greenspaces that connect Lincoln's town centre, public transport hubs, the River Witham/Fosdyke Canal and the surrounding countryside with employment and residential uses in growth locations. The Green Grid Initiative will be delivered through the masterplanning process for the Lincoln Area. Potential GI projects include: embedding/ retrofitting GI into the built environment (e.g. through incorporation of green roofs and green walls into buildings, long term maintenance of street trees, provision of sustainable urban drainage systems, temporary use of vacant plots as greenspaces for growing food, relaxation/recreation and play); providing new greenspaces – with a particular emphasis on accessible natural greenspace; enhancing biodiversity, providing local green links; and developing a Greenspace Strategy.

Ref	Name	GI Network Components	GI Functions	Need	Status	Description
19	Sleaford Green Grid Initiative	Urban Green Grids	<ul style="list-style-type: none"> • Biodiversity • Landscape • Access & Recreation • Energy & Food • Climate Change 	Initiative identified to support the sustainable regeneration and development of Sleaford, over the next 15-20 years.	Proposed	Development of a coherent vision and delivery framework for the creation of a multifunctional network of interlinked high quality greenspaces that connect Sleaford's town centre, public transport hubs, the River Slea and the surrounding countryside with employment and residential uses in growth locations. The Green Grid Initiative will be delivered through the masterplanning process for the Sleaford Area. Potential GI projects include: embedding/ retrofitting GI into the built environment (e.g. through incorporation of green roofs and green walls into buildings, long term maintenance of street trees, provision of sustainable urban drainage systems, temporary use of vacant plots as greenspaces for growing food, relaxation/recreation and play); providing new greenspaces – with a particular emphasis on accessible natural greenspace; enhancing biodiversity, providing local green links; and developing a Greenspace Strategy.

4.4 Governance and Delivery Co-ordination Arrangements

- 4.4.1 Effective strategic governance, leadership and co-ordination at the Central Lincolnshire level will be required to plan, manage and deliver the proposed GI Network across administrative boundaries and in the context of the wide range of different stakeholders. This is particularly important as there is currently no dedicated funding stream for GI. A long-term approach is also necessary as investment in new and enhanced GI provision is likely to be delivered incrementally, facilitated by, and in step with, major development.

Governance

- 4.4.2 Established in 2010, the **Central Lincolnshire GI Steering Group** currently comprises representatives of the following partner organisations:

- Central Lincolnshire Joint Planning Unit.
- City of Lincoln Council (Chair).
- Environment Agency.
- Lincolnshire County Council.
- Lincolnshire Wildlife Trust.
- Natural England.
- North Kesteven District Council.
- West Lindsey District Council.

- 4.4.3 The GI Steering Group was responsible for overseeing the production of the Central Lincolnshire GI Study, including development of the project brief. It is recommended that the GI Steering Group should continue to provide strategic governance and leadership for the delivery of GI in Central Lincolnshire by:

- Championing the importance, benefits and principles of GI to a wide audience across Central Lincolnshire – including the public, private and voluntary sectors
- Identifying and disseminating information on best practice approaches to GI delivery and long-term management/maintenance.
- Sourcing funding for implementation of the GI Strategy, and advising on budgets for capital and revenue expenditure on GI.
- Monitoring the implementation of GI, promoting good practice and reporting progress on delivery of actions that help to deliver the GI Network;
- Ensuring that GI is fully integrated and has a high profile within the wider work of the local authorities and the JPU.
- Promoting, disseminating and providing expert advice on the integration of GI and the GI Strategy into relevant plans, policies and programmes related to planning, environmental management, recreation and health provision.
- Working with wider stakeholders to identify and promote GI initiatives/projects for funding, and agree priorities for delivery.

- Establishing partnerships for the delivery, management and ownership of specific GI initiatives/projects.
- Liaising with GI partnerships in neighbouring areas to co-ordinate cross-boundary delivery of GI initiatives/projects at the sub-regional level.
- Consider the need to widen the Steering Group's membership as appropriate.

Delivery Co-ordination

4.4.4 To facilitate the co-ordinated delivery of GI across Central Lincolnshire, it is recommended that consideration be given to establishing a **Central Lincolnshire GI Strategy Implementation Co-ordinator**. The principal role of the Co-ordinator would be to support and develop the capacity of the local authorities and other partner organisations to deliver GI under the guidance of the GI Steering Group by:

- In conjunction with partner organisations, working to ensure that GI is fully integrated and has a high profile within the wider work of local authorities within Central Lincolnshire.
- In conjunction with partner organisations, promoting, disseminating and giving assistance and advice on the integration of GI and the GI Strategy into local authority documents, plans, policies and programmes, including Sustainable Urban Extension masterplanning.
- Assisting partner organisations, especially the Central Lincolnshire HMA Partnership Board, in prioritising action on GI that will deliver high quality and sustainably managed GI consistently across the area.
- Organising and managing relevant meetings of partner organisations, especially the GI Steering Group, wider stakeholder consultation, public exhibitions and meetings to promote GI across Central Lincolnshire.
- Assisting partner organisations and other stakeholders in sourcing funding for specific schemes and elements for the implementation of the GI Strategy.
- Working with partner organisations to capture and disseminate GI delivery good practice from within Central Lincolnshire and elsewhere.
- In liaison with the GI Steering Group, developing a Business Plan to support implementation of the GI Strategy by providing a mechanism for considering priorities for investment in GI delivery and management in relation to available sources of funding.

Wider Stakeholder and Community Engagement in GI Delivery

4.4.5 Other local organisations with an interest in GI provision and management in Central Lincolnshire should also be actively encouraged to engage in GI delivery. It is suggested that this is facilitated through establishment of a wider **Central Lincolnshire GI Stakeholder Forum**, whose expertise is drawn upon as appropriate in relation to particular technical aspects of GI, or with regards to project delivery within specific geographical areas. In particular, the Stakeholder Forum would provide an opportunity to build public-private sector partnerships for the delivery of GI funded through developer contributions and local businesses.

4.4.6 Examples of organisations within Central Lincolnshire that might participate in the Forum include:

- Country Land and Business Association
- English Heritage.
- Civic Societies.
- Groundwork East Midlands.
- Internal Drainage Boards.
- Lincolnshire Gardens Trust.
- Lincolnshire Limewoods Partnership.
- Lincolnshire Waterways Partnership.
- Lincolnshire Wolds AONB Unit.
- Local businesses.
- Major landowners and developers.
- National Farmers Union.
- National Trust.
- Parish and Town Councils.
- Sleaford Navigation Trust.

4.4.7 At the local level, it is important that appropriate mechanisms are in place that focus on community-scale involvement in GI delivery and long-term maintenance of greenspaces. Local partnerships should be encouraged to deliver small-scale GI projects to secure community engagement in long-term, locally-based site management. This is discussed further in **Section 4.7**.

4.5 Potential Funding Sources

4.5.1 The availability of funding is critical for investment in the GI required to meet current and future needs for Central Lincolnshire, and to support sustainable growth.

4.5.2 For over a century, local authorities (including town/parish councils) have built and managed parks and open spaces for the public, and investing in these and other GI assets continues to be mainly led by the public and third sector. For example, a number of statutory agencies and non-governmental environmental organisations own and/or manage significant areas of land and water that contributes to GI (e.g. Environment Agency, Forestry Commission, Wildlife Trust, Woodland Trust, National Trust, Groundwork, BTCV, RSPB, etc). Others, such as Natural England and English Heritage, invest in supporting conservation of the natural and historic environment.

4.5.3 In recent years, public funding has increasingly been supplemented by funding secured through the development of land using planning obligations (i.e. Section 106 Agreements). Typically, this has delivered on-site provision of open space and payments to local planning authorities for the creation and management of off-site GI. In areas with high levels of development, such sources of funding can make a substantial contribution to GI investment.

Whilst the planning system will continue to support investment in GI over the coming years, the level of GI anticipated across Central Lincolnshire, combined with increasingly constrained levels of public funding in the current economic climate, suggests that a creative approach to GI investment for Central Lincolnshire will be necessary. The use of a variety of funding sources for GI capital and revenue expenditure will be necessary in order to ensure that sufficient investment is available, without being over-reliant on any one funding source.

- 4.5.4 Within growth areas, the priority is to leverage in funds from national, regional and local sources to invest in major GI initiatives/projects. Wherever possible, the objective should be to deliver these actions in advance of development where it is reasonable to expect that the investment will be recovered from subsequent development schemes.

Mainstream Public Sector Funding

- 4.5.5 Mainstream public sector funds from a variety of national, regional and local sources are likely to continue to provide the largest source of funding for GI investment in Central Lincolnshire. Current public sector spending by local authorities and statutory agencies, and other bodies such as the NHS, amounts to many millions of pounds. However, the available level of funding will depend on the public sector maximising the value of its discretionary spending on GI-related initiatives/projects, and therefore this will be vulnerable to public sector budget constraints. Assumptions about future resources are speculative, as in many cases these sources of funding may only be available for the short-term relative to the timescale of the GI Strategy. Some are also dependent on successful competitive bidding, and other sources may or may not continue under the Coalition Government. Taking these caveats into account, it is suggested the following sources of mainstream funding are considered:

- **Mainstream local authority funding** provided through Government Supported Capital expenditure, revenue from income streams, borrowing and leverage of the value of existing property assets.
- **Mainstream funding of partner organisations** through co-ordination with the investment programmes of other public bodies (e.g. NHS).
- **Eco-town programme funding** provided by the Department for Communities and Local Government (CLG) to support research and demonstration projects in 11 second wave locations. The CLJPU is being supported by CLG to test the viability of delivering Eco-town standard development in Central Lincolnshire through the spatial policies of the LDF, based on evidence provided by the GI, Energy and Sustainable Future studies funded from the Government's £5m eco-town programme fund.
- **Homes and Communities Agency funding** in line with funding priorities for 2011 – 2014: to increase overall housing growth in terms of total new supply; to support local planning authorities in delivering Affordable Housing; existing stock; and regeneration and renewal of places and markets not thriving (including quality of design).

- **Regional Funding Allocations**, where local authorities can bid for support for schemes according to regionally established priorities for transport, economic development and housing.
- **European Union Funding** such as the LEADER Programme which is a source of funding for farmers, foresters, rural businesses and community organisations provided as part of the Rural Development Programme for England, and the INTERREG IVB and LIFE programmes.
- **Funding from agri-environmental schemes** run by Natural England that pays farmers and other land managers to manage their land for environmental benefits, supported through funding from the European Agricultural Fund for Rural Development and the UK Treasury (includes the Environmental Stewardship scheme).
- **Natural England's Access to Nature funding** is a grant scheme to encourage people from all backgrounds to understand, access and enjoy the natural environment. Funded by the Big Lottery Fund's Changing Spaces programme and Natural England, Access to Nature is run by Natural England on behalf of a consortium of major environmental organisations.
- **Forestry Commission English Woodland Grant Scheme** provides funding for woodland creation, biodiversity enhancement and access through a challenge fund.
- **English Heritage Grants** provide funding for the conservation and repair of heritage assets through grant schemes for historic buildings, monuments and designed landscapes.
- **Heritage Lottery Fund** provides funding for projects that conserve and enhance natural and historic assets through four main grant programmes (Landscape Partnerships; Parks for People; Heritage Grants; Townscape Heritage Initiative).
- **The BIG Lottery Fund** awards lottery money to community groups and projects that improve health, education and the environment - such as The Community Spaces programme, run on behalf of BIG by Groundwork UK, which funds community groups to improve local greenspaces.
- **Sport England's Small Grants Programme** uses lottery funding to provide awards to not-for-profit organisations to deliver community projects to either grow or sustain participation in sport or to support talent development.
- **Funding from Environment Agency investment programmes** for flood management infrastructure and related land management.
- **Aggregates Levy Sustainability Fund (ALSF)** provides funding in areas affected by aggregates extraction (through award partners such as Natural England) to reduce the environmental impact of aggregate extraction and promote a more sustainable and environmentally friendly way of mineral extraction and waste management.
- **Landfill Tax Communities Fund** distributes grants to community projects using funding generated from landfill taxes in the UK to help mitigate the effects of landfill on local communities, such as the Local Landscapes programme for transforming derelict areas into new greenspaces for local communities delivered by WREN.
- **Primary Care Trust funding** linked to the health agenda such as the Walk Your Way to Health initiative.
- **Safer Neighbourhood funding streams** linked to using GI to tackle, for example, anti-social behaviour, designing out crime and providing safe access routes for communities.

4.5.6 Additional and complimentary GI funding sources are highlighted in **Appendix A4**.

4.5.7 The East Midlands Green Infrastructure Toolkit has been designed by the East Midlands Development Agency to support the delivery of GI projects. The Toolkit provides an evaluation framework to assist practitioners with their decision making in relation to GI

investment. The Toolkit is for the benefit and use of local authorities, sub-regional partners, commercial businesses and other partners across the East Midlands who are involved in delivering GI projects.

Corporate Sponsorship Funding

- 4.5.8 Investment by the private sector in supporting a high quality environment and moving to a low carbon future through corporate environmental/social responsibility spending provides a further potential funding source for GI investment in Central Lincolnshire. In order to capture this source of funding alongside public sector spending, initiatives elsewhere in the UK have established funds to attract corporate sponsorship on a voluntary basis towards investment in accredited GI investment programmes or specific GI initiatives/projects. Examples include the Greener Living Spaces programme funded by Marks & Spencer and delivered by Groundwork, which funds improvements in parks, play areas and public gardens for neighborhoods around the UK; and carbon storage projects that fund new woodland creation schemes for delivering woodfuel, carbon storage and biodiversity benefits in key locations.

Developer Contributions

- 4.5.9 Whilst mainstream public sector funding is expected to continue to underpin funding for GI, it is anticipated that an appropriate contribution will be made towards GI by the new development it is intended to serve, while at the same time improving GI provision for existing residents. Funding for delivery of GI related to specific developments may be secured from developer contributions in line with appropriate planning policies provided by the Central Lincolnshire Local Development Framework. Such policies would enable the individual local authorities to require developers to provide (or make financial contributions towards) infrastructure and community benefits which the Councils consider necessary in conjunction with development.
- 4.5.10 **Planning obligations** secured through a Section 106 Agreement enable local authorities to seek financial contributions from developers to fund capital or maintenance works related to a development. This can include GI-related community benefits such as improvements to cycleways/pedestrian routes; provision and maintenance of greenspaces; conservation/provision of wildlife sites; conservation of historic features; and provision of public art.
- 4.5.11 The **Community Infrastructure Levy** (CIL) allows local authorities to levy a charge on new development in their areas to fund local and sub-regional infrastructure required to support development. A CIL can provide contributions for the provision of new and enhanced GI (such as parks and pedestrian/cycle routes) required by the increased development of an area, and

may also be used for on-going costs relating to infrastructure. In Central Lincolnshire, GI requirements are expected to be included in a Community Infrastructure Levy charging schedule which will support implementation of the Core Strategy's Infrastructure Delivery Plan.

- 4.5.12 A concept that is gaining ground in the UK is **biodiversity offsetting**, which may become a viable mechanism for funding GI within the next decade. This would provide a new form of developer contribution that seeks to provide a mechanism for offsetting the unavoidable physical loss of local biodiversity assets as a result of development through the payment of 'credits' by a developer to the relevant authority. These credits would then be invested by the relevant authority into local schemes that replace the equivalent quantum and type of lost habitat. The Natural Environment White Paper includes a commitment by the Coalition Government to pilot biodiversity offsetting in England, to assess its potential to deliver planning policy more effectively.

4.6 Spatial Planning and Development Management

- 4.6.1 The planning and development management process affords considerable potential to promote and deliver GI. To ensure that GI is implemented effectively in Central Lincolnshire, it is important that the relevant findings and recommendations of this GI Study are embedded in spatial planning and development management as highlighted in this section.

Sustainable Community Strategies

- 4.6.2 It is particularly important that the Sustainable Community Strategies (SCSs), which set out the overall approach to social, environmental and economic well-being for the area, are informed by the GI Study, as these provide the overarching framework for all other strategies - including the Central Lincolnshire LDF, which aims to deliver the spatial planning aspects of SCSs. Future iterations of the SCSs for Lincolnshire, West Lindsey, North Kesteven and the City of Lincoln should take into account the key messages in this GI Study to ensure that they continue to contribute to sustainable development objectives over the long-term.

Local Development Framework

- 4.6.3 A Local Development Framework (LDF) is being produced for the combined area covered by the City of Lincoln, North Kesteven and West Lindsey. These three councils have come together in a formal partnership with Lincolnshire County Council to prepare a joint LDF for Central Lincolnshire. A joint planning unit (JPU) has been set up to carry out this work, and a new joint committee established with representatives from each of the four partner councils.

4.6.4 The LDF is a suite of documents that usually includes the following development plans:

- A Core Strategy setting out the overall approach to growth and development.
- Site-specific housing allocations.
- Area action plans for areas of major change.
- Other more detailed local policies for development management.
- Supplementary planning documents, providing guidance on particular themes or places.

4.6.5 This GI Study forms part of the evidence base for the LDF, and has been prepared with the key tests of soundness for Development Plan Documents (DPDs) in mind¹⁸. The tests include (i) the need to be consistent with national policy (the GI approach is clearly advocated by national policy - see **Appendix A3** for details); (ii) the need for the approach to be justified by providing a clear link between policy formulation and a robust, credible evidence base, which has involved stakeholder participation and research/fact finding to back up choices made in the plan (the process undertaken in preparing this GI Study demonstrates that the requirements for research and participation have been met, and the needs, opportunities and issues for delivery of GI identified); and (iii) the need to be effective in addressing identified needs/issues. In respect of this last test, this GI Study has sought to be effective by undertaking the following:

- A policy review (**Appendix A3**) to ensure that key aspects of regulatory and national planning requirements are taken into consideration in the proposed recommendations for GI delivery.
- A review of GI Strategies/Plans in neighbouring authorities to ensure cross boundary consistency.
- Development and use of robust, transparent assessment methodologies to ensure that proposed solutions are clearly linked to addressing issues and needs identified in the evidence base.
- Providing opportunities for stakeholders to participate in all stages of the Study's preparation to ensure that the proposed GI Strategy and actions are deliverable and flexible, and that potential delivery partners are identified. Findings from the stakeholder consultation process are set out in **Volume 2**.

4.6.6 Some of the key aspects of the findings and recommendations of the GI Study that are relevant to planning policy, and will help inform the LDF, are highlighted below. These may also provide useful information for Sustainability Appraisals, and plan, policy or programme reviews:

- The overall justification for following a GI approach provided in **Section 1.0**.
- The policy review provided in **Appendix A3**.
- The audit of information on baseline environmental, social and economic conditions provided in **Volume 2 Section 2.0**.

¹⁸ PPS12: Creating Strong, Safe and Prosperous Communities through Local Spatial Planning (2008, DCLG)

- The analysis of key GI (and environmental) issues for Central Lincolnshire are set out in **Volume 2 Sections 3.0 and 4.0**, which includes a broad assessment of needs and opportunities for the provision of essential GI (such as access to natural greenspace).
- The proposed vision, objectives and GI Network for Central Lincolnshire set out in **Section 3.0**.
- The proposed GI delivery framework, including an outline action plan with recommended initiatives/projects to support delivery of the GI Network, provided in **Section 4.0**.

4.6.7 To assist plan makers in developing planning policies, advice on appropriate draft GI policies for inclusion in the Central Lincolnshire LDF is provided in **Appendix A5**. The draft policies seek to embed the spatial aspects of the GI Study's recommendations regarding priorities for GI investment in Central Lincolnshire (as defined by the proposed GI Network) into the Core Strategy. A draft model policy is also provided for inclusion in the Area Action Plans proposed for Gainsborough, Witham Valley Country Park, Central Lincoln, South East Quadrant Area (Lincoln) and Sleaford. It is recommended that local GI delivery plans are prepared to inform detailed policies in Area Action Plans for the key growth locations.

Infrastructure Delivery Planning

4.6.8 The tests of soundness and the need for well evidenced proposals, as described above, also apply more widely to infrastructure planning, and this GI Study can therefore provide a key part of the evidence baseline to inform infrastructure delivery planning in Central Lincolnshire. The Infrastructure Delivery Plan sits alongside the Core Strategy, and identifies what physical, social and green infrastructure is needed to support the vision for Central Lincolnshire over the period covered by the Core Strategy. The GI Study provides evidence of current and future needs and deficiencies in GI provision for the area by location and type, and includes a proposed framework for co-ordinating GI delivery. This framework includes an outline Action Plan which sets out GI needs and costs; priorities for GI delivery in relation to phasing of development; GI funding sources; and responsibilities for GI delivery. As such, it is recommended that consideration is given to reflecting the priorities for GI investment proposed by the GI Study in the Central Lincolnshire Infrastructure Delivery Plan.

Green Infrastructure Development Standards

4.6.9 The Supplement to Planning Policy Statement 1¹⁹ sets out a range of minimum standards for eco-town developments which are more challenging than would normally be required for new development. Adopting eco-town principles and standards through the Central Lincolnshire LDF would encourage a shift towards more sustainable, low carbon living by requiring developers to bring forward proposals for 'eco-town standard' development.

¹⁹ Planning Policy Statement: Eco-towns, a Supplement to Planning Policy Statement 1 (2009, DCLG)

- 4.6.10 It is recommended that, subject to the findings of viability assessments being undertaken by other studies (e.g. the forthcoming Central Lincolnshire Sustainable Futures Study), a standard for the provision of GI and biodiversity in Central Lincolnshire is included in the LDF's policies for development proposals that exceed a minimum threshold²⁰.
- 4.6.11 The Central Lincolnshire 'eco-development' standard recommended below is based on the model national eco-town standards ET14 (Green Infrastructure) and ET16 (Biodiversity). It is considered that the standard's requirements are necessary to address current and future deficiencies in the quantity, quality and accessibility of GI provision throughout Central Lincolnshire, as identified by this GI Study. The 'eco-development' standard is intended to be of value for developers, residents and planners in helping inform masterplanning, pre-application discussions and consultations, evaluation of planning applications and implementation of developments.

DRAFT 'ECO-DEVELOPMENT' STANDARD FOR GI AND BIODIVERSITY

- Planning applications should be accompanied by an integrated strategy setting out priority actions for conserving and enhancing local GI and biodiversity, prepared and implemented in accordance with advice from Natural England and/or other relevant statutory advisers.
- Forty per cent²¹ of the total development area should be allocated to greenspace, of which at least half should be publically accessible.
- The greenspace should comprise a network of well-managed, high quality spaces and links, connected to the wider GI Network and countryside by green corridors, which are in keeping with and enhance local landscape character.
- Planning applications should demonstrate a range of different types and sizes of greenspace in line with the recommendations of the Central Lincolnshire GI Study.
- Greenspace should be multi-functional wherever possible, providing for sport, play and recreation, promoting sustainable travel choices, supporting wildlife and facilitating climate change adaptation (e.g. urban cooling/sustainable water management such as SUDS).
- The greenspace network should include provision of land to allow the local production of food from domestic gardens, community gardens, allotments and/or commercial gardens.
- Planning applications should provide or contribute towards the provision and maintenance of off-site GI as appropriate in locations with identified deficiencies.
- Planning applications should maximise opportunities for encouraging nature to colonise buildings and private spaces through incorporation of high quality green roofs²²/green walls, domestic gardens and street trees into the greenspace network.
- Planning applications should demonstrate a net gain in local biodiversity by incorporating opportunities to enhance biodiversity in line with the England Biodiversity Strategy and the Lincolnshire Biodiversity Action Plan.
- Planning applications should demonstrate that significant adverse effects on internationally designated nature conservation sites, Sites of Special Scientific Interest will be avoided.

²⁰ Minimum development threshold as determined by the CLJPU through the LDF process

²¹ This is a minimum standard for greenspace provision as defined in paragraph 1.4.2, and can also include domestic gardens

²² The Green Roof Organisation Green Roof Code: Green Roof Code of Best Practice for the UK 2011 (2011, Groundwork Sheffield)

- Planning applications should demonstrate that significant adverse effects on local wildlife and geological sites will also be avoided wherever possible.
- Planning applications should include proposals for the management of local ecosystems and where appropriate, the restoration of degraded habitats or the creation of replacement habitats.
- Planning applications should include details of appropriate ecological mitigation and/or compensation measures required to minimise adverse effects on individual species and habitats of principal importance, and to enhance local biodiversity overall.
- The implementation of the GI/biodiversity strategy should proceed in parallel with the development, and planning applications should include details of arrangements for on-going management and maintenance of greenspace.

4.6.12 In support of the above standard, it is recommended that applicants apply the standards set out in the **TCPA's Eco-Towns Green Infrastructure Worksheet²³** and **Eco-Towns Biodiversity Worksheet²⁴**. The worksheets provide advice on the application of specific standards for delivery of different types of GI to inform the masterplanning of eco-development, and also set out detailed guidance on biodiversity considerations.

4.6.13 The key standards for GI provision recommended by the TCPA worksheets reflect the standards promoted by the **Natural England Accessible Natural Greenspace Guidance²⁵**. These are highlighted below.

4.6.14 The **Access to Natural Greenspace Standard** (ANGSt) provides a national aspirational standard and benchmark against which to measure the general extent to which people are able to access a range of natural (and semi-natural) greenspace types and sizes near where they live by sustainable modes of transport (i.e. walking, cycling or public transport). Natural England's ANGSt recommends that everyone, wherever they live, should have an accessible natural greenspace:

- of at least 2ha in size, no more than 300m (c.5 minutes walk) from home; and
- at least one accessible 20ha site within 2km of home; and
- one accessible 100ha site within 5 kilometres of home; and
- one accessible 500ha site within 10 kilometres of home.

4.6.15 In addition to the above, the ANGSt recommends that there also should be a minimum of 1ha of statutory Local Nature Reserves per 1000 population. The key findings from the assessment of need for accessible natural greenspace in Central Lincolnshire are summarised in **Section 2.3**, and full details can be found in **Volume 2: Section 3.4**.

²³ 'Essential Role of Green Infrastructure: Eco-Towns Green Infrastructure Worksheet' (TCPA, 2008)

²⁴ 'Biodiversity Positive: Eco-Towns Biodiversity Worksheet' (TCPA, 2009)

²⁵ 'Nature Nearby - Accessible Natural Greenspace Guidance' (Natural England, 2010)

- 4.6.16 The **Woodland Trust Woodland Access Standards**²⁶ provide a complementary accessibility standard to ANGSt and are endorsed by Natural England. This is based on a similar principle of accessibility to ANGSt:
- No person should live more than 500m from at least one area of accessible woodland of no less than 2ha in size.
 - There should also be at least one area of accessible woodland of no less than 20ha within 4km (8km round-trip) of people's homes.
- 4.6.17 The **Fields in Trust Benchmark Standards for Outdoor Sport and Play**²⁷ are also endorsed by Natural England. These are based on the long-standing 'Six Acre Standard' for the provision of recreational space originally developed in the 1930s as part of the garden city movement. Recommended standards are provided for outdoor sport, including:
- Quantity standards for playing pitches and other outdoor sport facilities.
 - Quality standards for outdoor sport facilities.
 - Accessibility standards for playing pitches and other outdoor sports facilities.
- 4.6.18 Recommended standards are also provided for outdoor play, including:
- Quantity standards for playing space and children's' playing space.
 - Accessibility standards for children's' playing space.
- 4.6.19 The **National Society of Allotment and Leisure Gardeners National Allotment Standard** is also endorsed by Natural England. The standard recommends a minimum provision of 20 standard plots of 250m² per 1,000 households.
- 4.6.20 To inform the formulation of local standards, this GI Study recommends that local assessments of the demand/need and opportunities for open space, outdoor sports and play facilities in Central Lincolnshire are commissioned (see **Section 4.8**). Once complete, development schemes in Central Lincolnshire should be required to make appropriate provision in accordance with the recommended standards for size criteria and distance catchments set out by the study.
- 4.6.21 Other useful sources of guidance that offer standards and principles for delivery of GI to inform the masterplanning of eco-development in Central Lincolnshire are highlighted below.

²⁶ See www.woodlandtrust.org.uk for details

²⁷ Planning and Design for Outdoor Space and Play (Fields in Trust*, 2008) *formerly the National Playing Fields Association

- 4.6.22 The MKSM Green Infrastructure Design Guide²⁸ '**Green Infrastructure by Design: Adding Value to Developments**' is promoted by Natural England and the Environment Agency as a valuable checklist for use by developers and planners to help embed high quality GI into the masterplanning of new developments, such as urban extensions, in growth locations.
- 4.6.23 CABE's **Building for Life standards**²⁹, developed in conjunction with the House Builders Federation, promote the incorporation of GI into housing developments through measures such as: sustainable building materials; renewable energy; green design principles (green roofs, grey water recycling, energy efficiency); and sustainable urban drainage systems.
- 4.6.24 Good practice advice for incorporating GI and biodiversity at the site masterplan scale can also be found in **Natural England's Green Infrastructure Guidance**, and the Town and Country Planning Association's **Biodiversity by Design** guide.
- 4.6.25 Developers should also be encouraged to consider applying to accreditation schemes, such as The Wildlife Trust's **Biodiversity Benchmark**, to gain recognition of the quality of their schemes for delivering local biodiversity benefits as part of development.

Greenspace Management Standards

- 4.6.26 In addition to standards for delivery of GI as part of the masterplanning of eco-development by developers in Central Lincolnshire, useful sources of standards and principles for the management of greenspaces by the public and third sector are also highlighted below.
- 4.6.27 The Natural England Accessible Natural Greenspace Guidance³⁰ includes standards for the management of greenspaces related to:
- **Service Standards** – national standards for delivery of core services/facilities for specific greenspace types (e.g. Country Park Accreditation).
 - **Quality Standard** – The Green Flag Award scheme provides a national quality standard for management of greenspaces.
- 4.6.28 **Towards an Excellent Service for Parks and Open Spaces**³¹ provides a framework to enable greenspace management organisations to benchmark their service against a model of excellence and plan improvements. The framework was developed by CABESpace, the Institute for Sport, Parks and Leisure and the Improvement and Development Agency.

²⁸ Green Infrastructure by Design: Adding Value to Developments - the MKSM Green Infrastructure Design Guide (April 2010, CBA)

²⁹ <http://www.buildingforlife.org>.

³⁰ 'Nature Nearby - Accessible Natural Greenspace Guidance' (2010, Natural England)

³¹ <http://www.idea.gov.uk/idk/core/page.do?pagelid=8722765>.

- 4.6.29 **CABE's Adapting Public Space to Climate Change**³² sets out lessons learned in the UK and around the world about how well-designed public spaces in urban areas can help adapt towns and cities to climate change, providing opportunities for water storage, cooling and carbon absorption.

Development Management

- 4.6.30 The development management process affords considerable potential to promote and deliver GI. Most significant development and land use change requires planning permission, and large-scale proposals often present both opportunities for GI enhancement and challenges for protection of important GI assets. Specific GI requirements will vary considerably according to the nature of the proposals. Individual schemes for proposed new development can contribute to GI delivery by increasing functionality of GI through the protection, restoration and enhancement of existing GI assets, creation of new GI and by the linking of GI assets.
- 4.6.31 Development management/planning officers and applicants should ensure that GI is considered and embedded in the scheme design from the outset, as part of the development process. In order that appropriate account is taken of GI requirements, the following checklist is recommended to inform the preparation and evaluation of planning applications:
- Review the Central Lincolnshire GI study and the relevant Local GI Delivery Plans as appropriate to identify the needs and opportunities for conserving and enhancing key GI assets that require consideration as part of site planning and design.
 - Identify if the proposed development site relates to, can contribute to or affects any proposed strategic or local GI initiative/project.
 - Consider the development proposal against the eco-development standards recommended in the Central Lincolnshire GI Study.

4.7 Management and Governance Options

- 4.7.1 The GI Strategy aims to encourage high quality greenspace management and maintenance standards, and investment in new or improved GI should be supported by a long-term commitment to its maintenance. Recent research³³ has highlighted the shortage of landscape architectural and horticultural skills in the greenspace management and maintenance sector in England. Additionally, the availability of adequate resources for maintaining the quality of publicly accessible greenspaces continues to be a significant challenge for local authorities throughout the country.

³² Adapting Public Space to Climate Change (2008, CABE)

³³ www.cabe.org.uk/files/green-space-skills-2009.pdf

4.7.2 There are many different ways of funding the management and maintenance of greenspace. The CABI space publication 'Paying for Parks' (2006) identifies a number of different approaches and provides case studies from both the UK and around the world. A number of the sources of funding are well established, e.g. Section 106 Obligations, whilst others are evolving as a result of government initiatives and experience from outside the UK. The main alternatives considered relevant to Central Lincolnshire are:

- Traditional Local Authority funding.
- Multi Agency public sector funding.
- Planning and development opportunities.
- Income generating opportunities.
- Endowments.
- Voluntary sector involvement.
- Service charges.
- Taxation initiatives.

4.7.3 It is widely recognised that arrangements for the management and governance of GI, and in particular public open spaces and their respective funding, is the key issue to resolve in providing sustainable and high quality greenspace in the long-term. A review of options that may be relevant to the management and governance of GI assets in Central Lincolnshire is set out in **Appendix A6**. The options considered by the review are:

- Option 1 – Local Authority Management Model.
- Option 2 – Private Management Company Model.
- Option 3A – Land Trust Model.
- Option 3B – Central Lincolnshire Green Infrastructure Trust Model.

4.7.4 The review also identifies the range of public and third sector organisations that are actively involved in greenspace management and maintenance within Central Lincolnshire. The review is supported by a range of case studies (see **Appendix A7**), which showcase best practice from other parts of the country with regards to management and governance of new and improved GI.

4.7.5 The options considered by the review relate to the management and governance of both greenspaces that will come forward as a result of planned growth, and also existing greenspaces primarily managed by local authorities. In order to deliver the vision for GI in Central Lincolnshire proposed in this GI Study, a much wider network of projects, partners and maintaining organisations will be needed to manage existing greenspaces in addition to greenspace provision directly funded by the planned growth itself. It should be noted that the most suitable management and governance option may vary between spaces. Furthermore, certain options may only be viable if a number of greenspaces can be managed in the same manner. It is also possible that within each greenspace site there could be a number of preferred management options or partners for individual facilities or assets which will relate to the expertise of the potential partners in the Central Lincolnshire area.

4.8 Further Work

- 4.8.1 This section provides recommendations for further work required to develop the evidence base for informing local delivery of GI. This work should build on the strategic audit and assessment of GI undertaken for this GI Study as presented in **Volume 2**.
- 4.8.2 Based on the open space, sports and recreation typology mapped in **Volume 2** of this GI Study, and consultation with users to determine local demand/need and opportunities, it is recommended that **local assessments of open space, outdoor sports and play facilities in Central Lincolnshire** are commissioned to inform the formulation of strategies and local standards of provision in order to guide spatial planning and development management.
- 4.8.3 To inform the local delivery of GI in key locations for growth, it is also recommended that consideration be given to commissioning the following studies:
- **Historic Environment Opportunity Mapping Studies** for the Gainsborough, Lincoln and Sleaford Areas.
 - **Townscape Character Assessment Studies** for the urban areas of Gainsborough and Sleaford.
 - **Landscape Sensitivity and Capacity Studies** for the settings of Gainsborough, Lincoln and Sleaford (including review of existing green wedge/equivalent designations).
- 4.8.4 It is recommended that **Biodiversity Opportunity Mapping** is completed as rapidly as possible to update/inform the delivery of the Central Lincolnshire GI Strategy, including the proposed Central Lincolnshire Ecological Network Strategy and Local GI Delivery Plans (see below).
- 4.8.5 The GI Study provides a strategic framework for guiding investment in GI across Central Lincolnshire as a whole. As noted previously, it is recommended that **Local GI Delivery Plans** are prepared to inform detailed policies in Area Action Plans for the key growth locations. Such plans should provide more detailed guidance on how GI might be delivered in these areas by local partners, and assist developers in embedding GI into the masterplanning of their development proposals. A recent example of this type of local GI delivery plan in Lincolnshire is the Grantham GI Strategy³⁴, commissioned by South Kesteven District Council to inform detailed policies in the Grantham Area Action Plan for guiding the future growth and regeneration of the town.

³⁴ Grantham Green Infrastructure Strategy (March 2010, CBA for South Kesteven District Council)
<http://www.southkesteven.gov.uk/index.aspx?articleid=1653>

4.9 Outline Action Plan

4.9.1 **Table 4.2** sets out an Outline Action Plan to guide delivery of the strategic GI initiatives/projects identified in **Section 4.3/Table 4.1/Figures 1.5a-d**. **Table 4.3** sets out an Outline Action Plan for taking forward the other recommendations of the GI delivery framework. In a number of cases, the costs and funding sources will need to be confirmed in light of the findings from other studies, strategic priorities and funding opportunities. The Action Plans are intended to provide a prompt for future action, and will require updating and revision as and when further information becomes available.

4.9.2 **Table 4.2** contains the following information (as appropriate):

- **Ref:** unique reference number for the initiative/project.
- **Strategic GI Initiative/Project:** name of the initiative/project as described in **Table 4.1**.
- **Action(s):** recommended critical path activities required to take forward delivery of the initiative/project. These include: **Feasibility Study/Business Plan** (to provide detailed examination of options to identify preferred site(s), route(s) or programme, and/or consider land ownership/availability/acquisition requirements, and/or provide costings for capital works and long-term maintenance, and/or identify potential sources of funding); **Project Implementation** (to indicate on the ground delivery of a project) or other actions/activities as described.
- **Lead Delivery Partner:** suggested potential lead partner with prime responsibilities for delivery of the initiative/project.
- **Supporting Delivery Partners:** suggested potential delivery partner(s) with responsibilities for supporting delivery of the initiative/project by the lead partner. Partner abbreviations:

CLBA	Country Land & Business Association
CLDFRMG	Central Lincolnshire Drainage and Flood Risk Management Group: <ul style="list-style-type: none">• Environment Agency• Lincolnshire County Council• West Lindsey District Council• City of Lincoln Council• North Kesteven District Council• Joint Central Lincolnshire Planning Authority• North East Lindsey DB• Ancholme IDB• Gainsborough IDB• Witham First District IDB• Upper Witham IDB• Witham Third District IDB• Newark Area IDB• Black Sluice IDB• Anglian Water• Severn Trent Water• Lincolnshire Resilience Forum
CLGISG	Central Lincolnshire Green Infrastructure Steering Group
CLP	Central Lincolnshire Partnership: <ul style="list-style-type: none">• Lincolnshire County Council• West Lindsey District Council

CoLC	City of Lincoln Council
EA	Environment Agency
EH	English Heritage
FC	Forestry Commission
HLP	Humberhead Level Partnership: <ul style="list-style-type: none"> • Doncaster Metropolitan Borough Council • Environment Agency • English Heritage • Natural England • North Lincolnshire Council • Wildlife Trusts
IDBs	Internal Drainage Boards
LBP	Lincolnshire Biodiversity Partnership ³⁵ :
LCC	Lincolnshire County Council
LLP	Lincolnshire Limewoods Partnership: <ul style="list-style-type: none"> • Bardney Development Trust • English Heritage • East Lindsey District Council • Forestry Commission • Heritage Trust of Lincolnshire • Lincolnshire County Council • Lincolnshire Wildlife Trust • Natural England • West Lindsey District Council • Woodland Trust
LPP	Lincolnshire Play Partnership ³⁶
LSP	Lincolnshire Sport Partnership ³⁷
LWCSP	Lincolnshire Wolds Chalk Streams Partnership: <ul style="list-style-type: none"> • Anglian Water • Environment Agency • Lincolnshire Wolds Countryside Services • Lincolnshire Wildlife Trust • Natural England
LWJAC	Lincolnshire Wolds Joint Advisory Committee
LWP	Lincolnshire Waterways Partnership: <ul style="list-style-type: none"> • British Waterways • Environment Agency • Lincolnshire County Council • Other partners
LWT	Lincolnshire Wildlife Trust
NE	Natural England
NFU	National Farmers Union
NKDC	North Kesteven District Council
NLC	North Lincolnshire Council
PC	Parish Council
SE	Sport England
TC	Towns Council
TVLP	Trent Vale Landscape Partnership
WLDC	West Lindsey district Council
WT	Wildlife Trusts

³⁵ List of LBP partners available on the following website:

http://www.lincsbiodiversity.org.uk/readfile2.php?s=About_Us&p=Partners

³⁶ List of LPP partners available on the following website:

<http://www.lincolnshire.gov.uk/upload/public/attachments/640/mpmilexecutivesummary.pdf>

³⁷ List of LSP partners available on the following website: <http://www.lincolnshiresports.com/about-us/example-3>

- **Indicative Capital/Revenue Costs:** broad estimate of indicative costs for delivery of priority actions, using cost bandings as follows:
 - * Low: <£50K
 - * Medium: £50k-£150K
 - * Medium-High: £150k-£500K
 - * High: £500k-£1M
 - * Major: >£1M
 - * TBC: Cost to be determined by Feasibility Study

- **Funding Source(s):** existing/potential funding options for delivery of an initiative/project based on the sources highlighted in **Section 4.5**. Potential funding sources abbreviations:
 - * ALSF - Aggregates Levy Sustainability Fund Grant Scheme
 - * BLF – Big Lottery Fund
 - * CoL – City of Lincoln Council
 - * HLF – Heritage Lottery Fund
 - * LCC – Lincolnshire County Council
 - * LT Communities Fund – Landfill Tax Communities Fund
 - * NKDC – North Kesteven District Council
 - * PCT – Primary Care Trust
 - * WLDC – West Lindsey District Council

- **Delivery Time-Scale:** suggested targets for delivery of priority actions identified as follows:
 - * Short Term: 2012-2014
 - * Medium Term: 2015-2020
 - * Long Term: 2021-2031

Table 4.2 - Outline Action Plan: Strategic GI Initiatives/Projects

Ref	Strategic GI Initiative/Project	Action(s)	Lead Delivery Partner	Supporting Delivery Partners	Indicative Capital Costs	Indicative Revenue Costs	Funding Source(s)	Delivery Time-Scale
1	Witham Valley Country Park Project	Business Plan/Strategy development	CLP/ CLGISG	Developers	Low	TBC	TBC	Short
		Action Plan delivery	CLP/ CLGISG		Med	TBC	TBC	Short
		3 year Project Officer	CLP/ CLGISG			Med	TBC	Short
2	Humberhead Levels Initiative	Practical local action	HLP	LWT	Low	Low	TBC	Short-Medium
3	Life on the Verge Project	Wolds - Project Implementation	LWT	LCC, LWCS, NE	Medium	Medium	<ul style="list-style-type: none"> • HLF • LWJAC • NLC 	Short
		Limestone - Project Implementation	LWT	LCC, LWCS, NE	Medium	Medium	TBC	Short
		Remainder of Central Lincolnshire – seek funding	LWT	LCC, LWCS, NE	Medium	Medium	TBC	Medium
		Southern Lincolnshire Edge/Kesteven Uplands – Limestone grassland restoration/re-creation	LWT/NE		Medium	Low	TBC	Short-Medium
4	Lincolnshire Wolds Chalk Streams Project	Project Implementation	LWCSP		TBC	TBC	TBC	Short- medium
5	Lincolnshire Limewoods Project	Project Implementation	LCC	Lincolnshire Limewoods partners	TBC	TBC	<ul style="list-style-type: none"> • HLF Heritage Grant • LCC • FC • NE • LWT • Countdown 2010 Biodiversity Fund • ALSF • Lincolnshire ALSF • HLF (Your Heritage) 	Short

Ref	Strategic GI Initiative/Project	Action(s)	Lead Delivery Partner	Supporting Delivery Partners	Indicative Capital Costs	Indicative Revenue Costs	Funding Source(s)	Delivery Time-Scale
6	Trent Vale Landscape Initiative	Project Implementation	TVLP		Low-Medium	Low-Medium	<ul style="list-style-type: none"> HLF Landscape Partnership programme Developer contributions. 	Short - Medium
7	Witham Peatlands Wetland Initiative	Feasibility Study	LWT/EA	NE	Low-Medium	TBC	<ul style="list-style-type: none"> Natural England's Wetland Vision funding stream Developer contributions 	Medium
8	Coversand Heathlands Initiative	Maintenance and restoration of lowland heathland within CL	FC	LWT, NE	Medium	Low-Medium	TBC	Short-Medium
9	Lincolnshire Wolds AONB Management Plan initiatives	Development of projects within CL wolds area	LCC/Wolds AONB Board	CLP/CLGISG	TBC	low	TBC	Medium-long
10	Central Lincolnshire Waterways Initiative	Feasibility Study/Business Plan	LWP, LCC		Medium-High	Low-Medium	Developer contributions	Short-Long
11	Lincolnshire Flood Risk and Drainage Management Initiative	Objectives alignment	LCC	CLDFRMG	Medium	TBC	EA WLDC CoLC, NKDC	Short-Medium
		Upper Witham Strategy	EA	CLDFRMG		Low - Medium	EA	Short
		Local Flood Risk Management Strategy	LCC	CLDFRMG		Low-medium	TBC	Short
		Total Environment initiative	LCC	CLDFRMG		Low	Existing budgets	Short- medium

Ref	Strategic GI Initiative/Project	Action(s)	Lead Delivery Partner	Supporting Delivery Partners	Indicative Capital Costs	Indicative Revenue Costs	Funding Source(s)	Delivery Time-Scale
12	Central Lincolnshire Sports and Play initiative	Feasibility Study	LSP, LPP	CLP/ CLGISG	Low	TBC	<ul style="list-style-type: none"> • LCC • WLDC • CoLC • NKDC • Sport England 	Short
13	Central Lincolnshire Community Renewable Energy Infrastructure Initiative	Feasibility study	TBC	CLP	TBC	TBC	TBC	Med-long
14	Central Lincolnshire Local Food Production Initiative	Feasibility Study	LCC	NFU, CLBA, IDBs	Low	TBC	TBC	Short
15	Central Lincolnshire Ecological Network Strategy	Strategy Preparation	CLP/ CLGISG	LBP, LWT, NE	Low	N/A	TBC	Short
16	Central Lincolnshire Green Access Links/Greenways Network Initiative	Feasibility Study	LCC	CLP/ CLGISG	Medium	TBC	LCC	Short
17	Gainsborough Green Grid Initiative	Feasibility Study	WLDC	CLP/ CLGISG NE, EA, EH LCC, LWT, FC, TC, PC, LWP	Medium	N/A	WLDC	Short-Medium
18	Lincoln Green Grid Initiative	Feasibility Study	CoLC	CLP/ CLGISG NE, EA, EH LCC, LWT, FC, TC, PC, LWP	Medium	N/A	CoLC	Short-Medium
19	Sleaford Green Grid Initiative	Feasibility Study	NKDC	CLP/ CLGISG NE, EA, EH LCC, LWT, FC, TC, PC, LWP	Medium	N/A	NKDC	Short-Medium

Table 4.3 - Outline Action Plan: Other GI Delivery Framework Recommendations/Actions

Section/Ref	Action(s)	Lead Delivery Partner	Supporting Delivery Partners	Indicative Cost	Funding Source(s)	Delivery Time-Scale
Governance & Delivery Co-ordination Arrangements Governance 4.4.3	GI Steering Group to continue to provide strategic governance and leadership for the delivery of GI in Central Lincolnshire	CLP	CLGISG	Low	TBC	Ongoing
Governance & Delivery Co-ordination Arrangements Delivery co-ordination 4.4.4	Establish a Central Lincolnshire GI Strategy Implementation Co-Coordinator post	CLP	CLGISG	£30K p.a. (assumes 0.5 FTE)	TBC	Short
Governance & Delivery Co-ordination Arrangements Potential funding sources 4.4.5	Establish a Central Lincolnshire GI Stakeholder Forum	CLP	CLGISG	Low	TBC	Short
Governance & Delivery Co-ordination Arrangements Wider stakeholder & community engagement 4.4.6	Encourage local community engagement in delivery of small-scale GI projects	CLP	CLGISG	Low	TBC	Ongoing
Potential Sources of Funding 4.5	Investigate appropriate mix of funding sources to inform preparation of a Business Plan to set priorities for GI investment	CLP	CLGISG	N/A	TBC	Short
Spatial Planning & Development Management Sustainable Community Strategies 4.6.2	Align future iterations of relevant Sustainable Community Strategies with the GI Study's key findings	CLP	CLGISG	N/A	TBC	Medium
Spatial Planning & Development Management Local development framework 4.6.3-4.6.6	Agree draft GI policies for inclusion in the Central Lincolnshire Local Development Framework as appropriate	CLP	CLGISG	N/A	TBC	Short

Section/Ref	Action(s)	Lead Delivery Partner	Supporting Delivery Partners	Indicative Cost	Funding Source(s)	Delivery Time-Scale
Spatial Planning & Development Management Infrastructure delivery planning 4.6.7	Reflect suggested priorities for GI investment in the Central Lincolnshire Infrastructure Delivery Plan	CLP	CLGISG	N/A	TBC	Short
Spatial Planning & Development Management GI development standards 4.6.9-4.6.10	Agree draft GI/Biodiversity 'Eco-Development' Standard for inclusion in the Central Lincolnshire Local Development Framework as appropriate	CLP	CLGISG	N/A	TBC	Short
Spatial Planning & Development Management Greenspace management standards 4.6.25	Promote recommended standards and principles for greenspace management	CLP/CLGISG	N/A	Low	TBC	Ongoing
Spatial Planning & Development Management Development management 4.6.30	Ensure that GI is considered and embedded at the outset of scheme design as part of the development management process	CLP Local Planning Authorities	Developers/ Applicants	N/A	TBC	Ongoing
Management & Governance Options 4.7	Investigate appropriate options for long-term GI management and governance	CLGISG	N/A	Low	TBC	Short
Further Work 4.8.2	Commission local assessments of open space, outdoor sports and play facilities in Central Lincolnshire	CLP	LSP, SE	Medium	TBC	Short
Further Work 4.8.3	Commission a Gainsborough Area Historic Environment Opportunity Mapping Study	CLP	N/A	Low	TBC	Short
Further Work 4.8.3	Commission a Lincoln Area Historic Environment Opportunity Mapping Study	CLP	N/A	Low	TBC	Short
Further Work 4.8.3	Commission a Sleaford Area Historic Environment Opportunity Mapping Study	CLP	N/A	Low	TBC	Short

Section/Ref	Action(s)	Lead Delivery Partner	Supporting Delivery Partners	Indicative Cost	Funding Source(s)	Delivery Time-Scale
Further Work 4.8.3	Commission a Gainsborough Townscape Character Assessment Study	CLP	N/A	Low	TBC	Short
Further Work 4.8.3	Commission a Sleaford Townscape Character Assessment Study	CLP	N/A	Low	TBC	Short
Further Work 4.8.3	Commission a Gainsborough Landscape Sensitivity and Capacity Study for the setting of the town (including review of existing settlement break designations)	CLP	N/A	Low	TBC	Short
Further Work 4.8.3	Commission a Lincoln Landscape Sensitivity and Capacity Study for the setting of the built up area (including review of existing green wedge/settlement break designations)	CLP	N/A	Low	TBC	Short
Further Work 4.8.3	Commission a Sleaford Landscape Sensitivity and Capacity Study for the setting of the town (including review of existing visual amenity area designations)	CLP	N/A	Low	TBC	Short
Further Work 4.8.4	Commission Biodiversity Opportunity Mapping to update/inform the delivery of the Central Lincolnshire GI Strategy, including the proposed Central Lincolnshire Ecological Network Strategy and Local GI Delivery Plans	CLP	CLGISG, LBP, LWT, NE	TBC	TBC	Short
Further Work 4.8.5	Commission a Gainsborough Area Local GI Delivery Plan	CLP	N/A	Low	TBC	Short-Medium
Further Work 4.8.5	Commission a Lincoln Area Local GI Delivery Plan (covering Witham Valley Country Park, Central Lincoln and the South East Quadrant Area)	CLP	N/A	Low	TBC	Short-Medium
Further Work 4.8.5	Commission a Sleaford Area Local GI Delivery Plan	CLP	N/A	Low	TBC	Short-Medium
Monitoring Arrangements Monitoring 4.10.2	Monitor implementation/progress of the Action Plan through progress reports and identify priority actions for the next	CLP	CLGISG	Low	TBC	Annually

Section/Ref	Action(s)	Lead Delivery Partner	Supporting Delivery Partners	Indicative Cost	Funding Source(s)	Delivery Time-Scale
and Review 4.10.6	year. Update and review action plan, to respond to changing priorities and opportunities					
Monitoring Arrangements Monitoring 4.10.2	Assess effectiveness of actions in achieving the GI vision and review overall direction of GI Strategy in response to changing priorities/needs	CLP	CLGISG	Low	TBC	Annually
Monitoring Arrangements Review 4.10.5	Review GI Strategy (Volume 1) and the GI Audit and Assessment (Volume 2) and update as necessary to reflect changed circumstances (such as new policy drivers or enhanced data)	CLP	CLGISG	TBC	TBC	Every two years
Monitoring Arrangements Digital data management 4.10.8	Keep underlying digital datasets under review and update as and when appropriate. Consider developing and adopting a data management protocol, to provide an agreed framework for maintaining CL GI datasets.	CLP	CLGISG	TBC	TBC	Ongoing

4.10 Monitoring Arrangements

- 4.10.1 This section of the GI Strategy sets out recommended arrangements for monitoring and review of the GI Study, including management of digital data.

Monitoring

- 4.10.2 Monitoring the outcome of the Central Lincolnshire GI Study is essential to demonstrate achievements against the proposed vision, and to learn lessons from implementation of GI initiatives/projects to inform future decision-making and funding applications. It is recommended that the GI Steering Group monitors the implementation of the GI Strategy by:

- Monitoring the progress of the Action Plan through the production of annual progress reports on work achieved and identification of priorities for the following year.
- Assessing the effectiveness of action in achieving the vision and reviewing the overall direction of the Strategy in response to changing priorities and needs.

- 4.10.3 It is important that the GI Strategy is seen to be effective. An essential part of the monitoring process should therefore be to highlight and publicise achievements of the Strategy through newsletters, the website and events. It is recommended that this activity is undertaken by the GI Steering Group.

Review

- 4.10.4 The Study presents a snapshot of the quantity, quality and accessibility of Central Lincolnshire's GI in 2011. It paints a picture of the needs and opportunities for GI seen against a backdrop of a changing policy context, reflected in part by the Coalition Government's Natural Environment White Paper and local aspirations to deliver 'Eco-town standard' development in Central Lincolnshire. The Study will therefore require regular review to ensure that it remains a useful and relevant source of information to support future planning policy work and local delivery of GI.
- 4.10.5 It is recommended that the GI Strategy (**Volume 1**) and its supporting GI Audit and Assessment (**Volume 2**) are reviewed every two years by the GI Steering Group as a minimum, and updated as necessary to reflect changed circumstances - such as new policy drivers or enhanced data for example.
- 4.10.6 The outline Action Plan (**Section 4.9**) will require updating and review on a shorter timescale than the rest of the GI Study, and should respond to changing priorities and opportunities, particularly those linked to major new strategic development sites once locations and delivery

timelines for these come forward through the Core Strategy process. It is recommended that following finalisation by stakeholders, the initial formal review of the Action Plan will be undertaken in 2012/13, and kept under review on an annual basis thereafter.

Digital Data Management

- 4.10.7 Whilst every reasonable effort has been made to source relevant and up-to-date digital data for the GI Study, the spatial information presented on the report figures reflects the current availability, coverage and quality of digital data collated within the budget and timescale constraints of the project.
- 4.10.8 In order to ensure that partners have access to a shared evidence base of objective environmental baseline data to inform the planning and delivery of GI, it is important that the relevant organisations responsible for environmental data management in relation to Central Lincolnshire should keep the underlying datasets up-to-date. To assist with this, the relevant organisations should consider developing and adopting a 'data management protocol' to provide an agreed framework for maintaining environmental datasets within Central Lincolnshire (including, for example, updating of 'live datasets' such as the provisional Central Lincolnshire-wide Open Space, Sport and Recreation typology mapped by CBA as part of the GI Study). It is recommended that the protocol is based on the following key principles:
- **Environmental data should be made widely accessible to users** - the environmental datasets (and interpretative data) collated by CBA are an invaluable resource for GI planning, delivery and management. This data should be archived and made accessible in a form that allows users to readily conduct analyses necessary to describe and understand the spatial distribution of different types of GI assets in Central Lincolnshire.
 - **Environmental data management activities should recognise user needs** – as user needs and the datasets themselves are constantly evolving, all environmental data archiving, access and stewardship decisions for specific datasets should incorporate substantial and on-going user input.
 - **Effective partnerships for environmental data management** – there needs to be substantial coordination and agreement among relevant agencies and partners in order to ensure proper stewardship of data.
 - **Environmental data requires careful stewardship** – clearly assigned responsibilities for data stewardship/maintenance should be applied to all environmental datasets and their associated metadata, to ensure that this information is preserved, remains continually accessible and can be improved as future research and investigations provides new understanding and knowledge.

APPENDIX A1 STUDY METHODOLOGY

STUDY METHODOLOGY

The study process involved three key stages of work (as outlined on **Figure 1.2**).

Stage 1 – Audit of GI Assets & Stakeholder Workshop

A desk-based audit of GI in the Study Area was undertaken using existing information to map the existing level of provision. The audit involved:

- Collating and carrying out a desk-top audit of the existing national, regional and local data that illustrates the type, nature and spatial characteristics of Central Lincolnshire's GI assets;
- Mapping relevant datasets to display the range of GI assets at the Central Lincolnshire scale and for the Gainsborough, Lincoln and Sleaford sub-areas (**Volume 2: Appendix A1** provides a record of the datasets used to map GI);
- Reviewing existing evidence base documents and key studies, background documents and strategies;
- Identifying and mapping existing strategic GI initiatives, such as the proposed Witham Valley Country Park;
- Identifying and digitising open space, sport and recreation sites within North Kesteven District and West Lindsey District to complement the existing provisional mapping for the City of Lincoln to create a consistent open space, sport and recreation typology for the Study Area (see **Volume 2: Appendix A9** for details of the open space, sport and recreation GIS-based data capture methodology); and
- Drawing together the data to identify and map 'strategic greenspace' within the Study Area. In line with best practice from other strategic level GI studies, individual greenspaces over 2ha or clusters of smaller greenspaces in close proximity to each other, that together create a site over 2ha in size, were mapped as 'strategic greenspace' (which includes all defined green corridors).

GI assets were mapped according to the following themes:

- Ecosystems Services;
- Biodiversity;
- Landscape and Townscape Character;
- Historic Environment;
- Access and Recreation;
- Strategic Greenspace; and
- Existing Strategic GI Initiatives.

Mapping and analysis of the social and economic conditions within the Study Area was also undertaken to inform the assessment of needs for enhanced GI provision. Finally, the audit includes a review of the issues and options for growth around Gainsborough, Lincoln and Sleaford.

The audit was informed by a range of initial consultations with local stakeholders, including a workshop held in June 2011 to which the stakeholders listed in the **Volume 2: Appendix A2** were invited. The workshop provided an opportunity for stakeholders to review the initial GI audit findings, and to identify and discuss needs and opportunities for GI provision in the Study Area. Feedback and the key messages from the workshop are set out in the Stakeholder Workshop Report in **Volume 2 Appendix A3**.

The provisional Stage 1 findings, incorporating feedback from the stakeholder workshop, were included in an Interim Report and made available to the stakeholders (as listed in **Volume 2: Appendix A2**) for review and comment. The audit was updated as appropriate to reflect stakeholder feedback on the Interim Report, as reported in **Volume 2: Section 2.0** and on **Volume 2: Figures 2.1a – 2.19d**. Key messages from the stakeholder feedback on the Interim Report's GI audit are set out in **Volume 2 Appendix A4**.

Stage 2 – Assessment of GI Needs/Opportunities & Stakeholder Consultation

Drawing on the GI audit, an assessment of the needs/deficiencies and opportunities for enhancing, linking and extending existing GI assets to provide a coherent, functioning GI network for Central Lincolnshire was undertaken. The key needs/deficiencies and opportunities for GI across Central Lincolnshire as a whole were examined in relation to the following five GI functions (adapted from the GI functions set out in Natural England's GI Guidance, 2009):

- Wildlife habitat provision;
- Landscape/townscape setting and historic context;
- Sustainable access, recreation and movement;
- Sustainable local energy and food production; and
- Sustainable resource management and climate change adaptation.

The potential for combined multiple public benefits from GI provision was also examined at the Central Lincolnshire scale using data from the East Midlands Public Benefit Mapping Project. In addition to current needs, the capacity of existing GI assets in the Study Area to accommodate future changes was also assessed - such as climate change, flood risk management, agricultural changes, major development proposals and regeneration. This process was informed by the existing evidence base and consultation with stakeholders to identify key needs.

In addition to the above, for the purposes of the study 30 'GI Zones' were defined on the basis of common GI characteristics and assets. The key needs/deficiencies and opportunities for each Zone were examined in relation to the following three GI functions:

- Wildlife habitat provision;
- Landscape/townscape setting and historic context; and
- Sustainable access, recreation and movement.

The provisional Stage 2 findings were also included in the Interim Report and made available to stakeholders (as listed in **Volume 2: Appendix A2**) for review and comment. The assessment was updated to reflect stakeholder feedback on the Interim Report as appropriate, as reported in **Volume 2: Section 3.0**, and for each of the GI Zones in **Volume 2: Section 4.0**. Key messages from the stakeholder feedback on the Interim Report's GI assessment are set out in **Volume 2 Appendix A4** - overall, stakeholders generally supported the Interim Report and findings.

Stage 3 – Preparation of Draft Strategy & Stakeholder Consultation

Drawing on the evidence and analysis prepared in Stage 1 and 2, including stakeholder feedback on the Interim Report, Stage 3 involved developing a proposed Green Infrastructure Strategy for Central Lincolnshire. This involved:

- Providing an overview of Central Lincolnshire's existing GI assets and a summary of the key needs and opportunities to safeguard and enhance these as part of the GI network;
- Defining a draft vision and objectives for GI and a proposed Green Infrastructure Network for Central Lincolnshire. Together, these provide a long-term and overarching strategic framework for guiding GI delivery to 2026/2031, and beyond;
- Outlining a proposed framework for delivery of the GI Strategy's vision. The framework includes:
 - A set of core principles for guiding GI delivery;
 - An outline long-list of strategic GI initiatives and projects;
 - Governance and delivery co-ordination arrangements;
 - Potential funding sources for GI investment;
 - Proposals for embedding GI in spatial planning and development management;
 - Options for GI management and maintenance;
 - Recommendations for further work to develop the evidence base;
 - An outline action plan for further development in detail by stakeholders; and
 - Monitoring and review arrangements, including digital data management.

The overall findings of Stage 3 were presented as Volume 1 of the Study – the Green Infrastructure Strategy.

Together with the updated Stage 1 and 2 findings of the Green Infrastructure Audit and Assessment presented as Volume 2, these documents provided a proposed strategic framework to guide the planning and delivery of Green Infrastructure across Central Lincolnshire over the next 15-20 years. Both volumes and an executive summary were made available as a Consultation Draft for a 4 week consultation period for review and comment by the stakeholders listed in **Volume 2 Appendix A2**. Key messages from the stakeholder feedback on the Consultation Draft Reports are set out in **Volume 2 Appendix A5** – overall, the Consultation Draft Reports were well-received/supported by stakeholders. Following the end of the consultation period, the Consultation Draft was updated to reflect stakeholder feedback as appropriate and the Study finalised.

APPENDIX A2
PRIVATE GARDENS, STREET TREES AND GREEN ROOF RESEARCH

PRIVATE GARDENS, STREET TREES AND GREEN ROOF RESEARCH

A summary of current national research on the relevance of private gardens, street trees and green roofs as potential assets for biodiversity is set out below.

Summary

It is increasingly recognised in the UK, including by national organisations such as Natural England, the Forestry Commission and the Design Council/CABE, that private gardens, street trees and green roofs are valuable assets for biodiversity and have an increasingly pivotal role to play in biodiversity conservation and enhancement - particularly in light of a rapidly changing climate and habitat loss and fragmentation. It is becoming clear that some species that have undergone marked decline in the countryside are found in significant numbers in urban areas³⁸. They provide important living spaces as well as a network of useful stepping stones/informal wildlife corridors allowing wildlife to migrate between larger areas of suitable habitat. The degree to which individual private gardens, street trees and green roofs contribute to biodiversity undoubtedly depends on factors such as location, size, type of species and management. Much work is being done to promote planting design, management and maintenance techniques which encourage biodiversity. The importance of private gardens, street trees and green roofs (for the many benefits they deliver, including biodiversity) is also increasingly being recognised in development plan documents either as part of GI as a whole or under specific policies. The 2008 update of the London Plan, for example, includes a policy requiring major developments to incorporate green roofs wherever feasible³⁹.

Biodiversity Value of Private Gardens

Private gardens do not exist as a single continuous entity and are, instead, highly fragmented and often embedded within other habitats. However, there is a range of scientific evidence to support the assertion that gardens are valuable for wildlife⁴⁰. They represent a characteristic wildlife habitat of towns and cities and provide many people with immediate and regular contact with nature⁴¹. As is true of street trees and green roofs, private gardens provide nesting and foraging habitats/living spaces for a wide variety of species and a network of useful 'stepping stones'/informal wildlife corridors between sites⁴².

Natural England states that, when added together, the UK's 15 million gardens can be considered an important habitat at the national level⁴³. As stated in the Green Infrastructure Eco-town worksheet⁴⁴, *'in most existing towns and cities, gardens collectively account for a sizeable percentage of the total urban area and are an important contributor to local environmental quality. [...] Whilst the focus of any GI will be on a network of publicly owned spaces, planning for a fully functional GI network must factor in the role of private spaces, notably private gardens'*.

Many species that are declining in the countryside, such as the common frog, song thrush and hedgehog (the latter two species being listed as species of principal importance for conservation of biological diversity in England under the Countryside and Rights of Way Act 2000), can thrive in private gardens and other areas if the right conditions are provided⁴⁵. Gardens can offer a rich variety of resources, such as a broad range of microclimates, plant species, and vegetation structures. They can also provide habitats, such as ponds, that may be increasingly rare elsewhere. The potential diversity of wildlife in private gardens is illustrated by the long-term study of a suburban Leicester garden, which was managed sympathetically towards wildlife, where more than 2200 animal and plant species were recorded. Another study recorded more than 95 species of wild plants in a single garden⁴⁶.

³⁸ Biodiversity Positive: Eco-Towns Biodiversity Worksheet (2009, TCPA)

³⁹ Policy 4A.11 in The London Plan Spatial Development Strategy for Greater London - Consolidated with Alterations since 2004 (2008, Mayor of London)

⁴⁰ British Trust for Ornithology: gardens and Wildlife (<http://www.bto.org/volunteer-surveys/gbw/gardens-wildlife>)

⁴¹ Biodiversity Positive: Eco-Towns Biodiversity Worksheet (2009, TCPA)

⁴² Sheffield University's Biodiversity in Urban Gardens (BUGS) project (<http://www.bugs.group.shef.ac.uk/BUGS1/backgrnd.html>)

⁴³ Natural England

⁴⁴ The Essential Role of Green Infrastructure: Eco-Towns Green Infrastructure Worksheet (2008, TCPA)

⁴⁵ Natural England: Wildlife Gardening Booklet (<http://www.naturalengland.org.uk/advice/wildlifegardening/default.aspx>) and RSPB: Homes for Wildlife (<http://www.rspb.org.uk/hfw/>)

⁴⁶ Sheffield University's Biodiversity in Urban Gardens (BUGS) project (<http://www.bugs.group.shef.ac.uk/BUGS1/backgrnd.html>)

Gardens are not only inhabited by common species - the juniper pug is an example of a scarce moth whose natural food-plant is rare, but which successfully exploits ornamental junipers in domestic gardens. Likewise, the stag beetle lives in tree stumps and logs in its larval stage, but these are a rather scarce resource in many areas. Their presence in gardens supports stag beetle populations in south east England.⁴⁷

Whilst gardens currently provide important homes for wildlife, many tend to be intensively managed. There is great potential for all gardens to be designed, modified and managed to attract wildlife/support biodiversity⁴⁸. Projects such as Homes for Wildlife (run by The RSPB⁴⁹) and Wild About Gardens (run by The RHS and The Wildlife Trusts⁵⁰) have been set up to encourage and inspire individuals to take action for wildlife/biodiversity in their gardens. Research by Sheffield University has found that key features are trees, dead wood, water, and a real variety of plant shapes and sizes. By providing these simple needs, gardens can become more than outdoor rooms and form part of an interconnected network of greenspaces that together amount to an important 'nature reserve' - whether in urban areas or within the wider countryside⁵¹.

The 'Detailed Design: Green Buildings and Private Spaces' section of the TCPA's 'Biodiversity by Design' guide⁵² illustrates how buildings and private spaces can '*create the potential for a fine grain of habitat mosaics, selected to respond to the distinctive range of microclimate conditions*' and explores '*how nature can be encouraged to colonise buildings and private spaces*'. It states that '*private gardens can support a wide variety of wildlife*' and that '*high density urban forms create the potential for habitats on walls, balconies, roofs, terraces and decks*'.

Biodiversity Value of Street Trees

The biodiversity value of street trees is recognised by the Forestry Commission in 'The Case for Trees in Development and the Urban Environment'⁵³, which describes the environmental value of trees, including adding to biodiversity. The report states that:

'Trees enhance biodiversity. A mature oak can host up to 5000 different species of invertebrate that will form the basis for a healthy food chain that benefits birds and mammals. As a platform for biodiversity trees can link pockets of wildlife that, in time, helps to increase it and thus bring people closer to nature. [...]

In principle, the Forestry Commission's minimum policy objective is that development ought, through Green Infrastructure provision, to lead to an increase in tree canopy cover by 5%. An excellent exemplar that could be used to develop policy within LDFs is the London Plan. The London Plan encourages each Borough to produce its own comprehensive tree strategy covering the audit, protection, planting and management of trees and woodland.'

CABE (now part of the Design Council) reinforce the biodiversity value of street trees stating that '*street trees bring wildlife into urban areas and provide habitat and food for birds and insects*'.⁵⁴ In its advice on 'Choosing the Right Tree for the Site'⁵⁵, CABE stress the importance, at the site level, of choosing the right tree and plant species for the location and the need to consider a range of factors including 'native species to promote biodiversity'.

⁴⁷ Sheffield University's Biodiversity in Urban Gardens (BUGS) project (<http://www.bugs.group.shef.ac.uk/BUGS1/backgrnd.html>)

⁴⁸ Natural England: Wildlife Gardening Booklet (<http://www.naturalengland.org.uk/advice/wildlifegardening/default.aspx>) and The Essential Role of Green Infrastructure: Eco-Towns Green Infrastructure Worksheet (2008, TCPA)

⁴⁹ RSPB: Homes for Wildlife (<http://www.rspb.org.uk/hfw/>)

⁵⁰ RHS and Wildlife Trust Wild about Gardens (<http://www.wildaboutgardens.org/>)

⁵¹ RHS and Wildlife Trust Wild about Gardens (<http://www.wildaboutgardens.org/>)

⁵² Biodiversity by Design (2004, TCPA)

⁵³ The Case for Trees in Development and the Urban Environment (2010, Forestry Commission) (see <http://www.forestry.gov.uk/forestry/INFD-88NFR>)

⁵⁴ Sustainable Place: Managing Urban Trees (CABE) - see <http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/sustainable-places/advice/urban-trees>

⁵⁵ Sustainable Place: Choosing the Right Tree for the Site' (CABE) - see <http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/sustainable-places/advice/the-right-tree>

The 'No Trees No Future: Trees in the Urban Realm'⁵⁶ guidance by the Trees and Design Action Group provides practical advice for integrating trees into new building schemes and qualitative advice on the reasons why large species trees should be used wherever possible. The Group has produced case studies showing how trees have been successfully integrated into different types of housing development. The guidance states that there is a substantial body of research that supports the many benefits that trees bring to urban areas including *'increasing biodiversity and providing food and shelter for wildlife'*.

The Town and Country Planning Association's (TCPA) 'Biodiversity Positive: Eco-Towns Biodiversity Worksheet'⁵⁷ makes reference to street trees and states that *'detailed design of buildings and other structures should include specific measures for biodiversity. This includes incorporating trees into street design and 'hard' open spaces.'* The Masterplanning section of the TCPA's 'Biodiversity by Design' guide⁵⁸ illustrates how to plan for GI in order to realise the social, economic and environmental benefits of biodiversity. It includes a section dedicated to street trees which describes how *'street trees can be used to create a continuous canopy, creating an experience of living in an urban forest'* and explores how *'street trees can be used to define streets, improve the urban environment and provide linkages in habitat networks'*.

To ensure that more trees are planted in urban areas, street tree planting programmes have been implemented across the UK including The Big Tree Plant campaign, The Mayors Street Tree Programme and The Mersey Forest Green Streets Initiative.

Biodiversity Value of Green Roofs

Green roofs provide valuable wildlife habitats and can significantly enhance biodiversity. They can provide nesting and foraging habitats for invertebrates, butterflies and birds as well as support a variety of plants. Green roofs are particularly important in urban areas, providing habitats in built up areas that are often lacking in biodiversity. They can also play a useful role in connecting existing areas of habitat and supporting rare and protected species. Green roofs can be used to create a range of complementary habitats and are particularly effective in combination with other biodiversity enhancements such as provision of artificial nesting and roosting sites and ecological landscaping⁵⁹.

The benefits of green roofs have been recognised in the UK by the release of 'Living Roofs and Walls: Technical Report to Support the London Plan'⁶⁰, which led to the first direct policy in the delivery of green roofs in the UK. The latter forms part of the 2008 London Plan and states that:

'The Mayor will and boroughs should expect major developments to incorporate living roofs and walls where feasible and reflect this principle in LDF policies. It is expected that this will include roof and wall planting that delivers as many of these objectives as possible:

- *accessible roof space*
- *adapting to and mitigating climate change*
- *sustainable urban drainage*
- *enhancing biodiversity.'*

Boroughs should also encourage the use of living roofs in smaller developments and extensions where the opportunity arises.

One of principal benefits of green roofs, as listed in the 'Living Roofs and Walls Technical Report'⁶¹ is conserving and improving biodiversity. Although the Report discusses biodiversity benefits within the context of London, these are generally applicable nation-wide. The Report states that *'the biodiversity benefits of green roofs to London are manifold. The greening of a roof can support rare and interesting types of plant, which in turn can host or provide suitable habitat for a variety of rare and interesting*

⁵⁶ No Trees No Future: Trees in the Urban Realm (2008, Trees and Design Action Group)

⁵⁷ Biodiversity Positive: Eco-Towns Biodiversity Worksheet (2009, TCPA)

⁵⁸ Biodiversity by Design (2004, TCPA)

⁵⁹ Green Roofs and Walls: Good Practice Guide 1 (2009, Islington Council)

⁶⁰ Living Roofs and Walls: Technical Report Supporting London Plan Policy (2008, Design for London for the Mayor of London)

⁶¹ Living Roofs and Walls: Technical Report Supporting London Plan Policy (2008, Design for London for the Mayor of London)

invertebrates. *London Biodiversity Action Plan species, such as the black redstart or house sparrow, can benefit from the creation of roof top habitat*'. The biodiversity value of green roofs is also emphasised in the following documents and websites:

- 'The Green Roof Organisation Green Roof Code'⁶², which states that *'Green roofs can replace habitat that has been lost as a result of urban development or create habitats for enhanced biodiversity to actively encourage flora and fauna into the area, for example, by providing food, habitat, nesting opportunities or resting places for creatures, such as spiders, beetles, butterflies, birds and other invertebrates.'*
- The Green Roof Centre, the UK's national centre of excellence for green roofs⁶³ (Department of Landscape, University of Sheffield) states that *'One of the many benefits of green and vegetated roofs is associated with the role they play in promoting ecology, biodiversity and wildlife. The inclusion of more green and vegetated spaces, particularly within urban areas, increases the potential for wildlife in the form of plants, insects and birds to find suitable habitats'*.
- 'Living Roofs'⁶⁴, published by Natural England, which states that *'plants suitable for living roofs (which include mosses and sedums, wildflowers, grasses and even shrubs and trees) can help create habitats that will attract a range of wildlife'*.
- 'Green Roofs: their existing status and potential for conserving biodiversity in urban areas'⁶⁵, published by English Nature (now Natural England) and which recognises the potential biodiversity benefits of green roofs as:
 - *'Helping to remedy areas of deficiency, i.e. providing new habitat in areas which are currently lacking in wildlife habitat;*
 - *Creating new links in an intermittent network of habitats, thereby facilitating movement and dispersal of wildlife; and*
 - *Providing additional habitat for rare, protected or otherwise important species.'*
- The green roof webpage which forms part of the Environment Agency's website⁶⁶, which states that *'green roofs provide a habitat for wildlife, especially if nest boxes, logs and water features, and plant native species area included'* and includes a green roof toolkit.
- The website livingroofs.org, which promotes green roofs and living roofs in the UK and is the UK member of the European Federation of Green Roof Associations. The website includes a range of information relating to the biodiversity value of green roofs and states that *'green roofs can provide important refuges for wildlife in urban areas.'*

Green roofs have been installed in Germany and Switzerland since the early 1970s with the conservation of biodiversity being one of their principal objectives, particularly in Switzerland, where local seeds and substrates have been used to ensure that the habitat characteristics are relevant to location⁶⁷. This approach is now being explored in individual projects in the UK and North America. However, any form of green roof whether it is intensive or extensive, or any of the variants between, will provide habitat for some common species, and provide valuable green links and stepping stones for animals such as birds and invertebrates.

Green roofs have a role to play in meeting both national and local biodiversity targets. English Nature's Green Roof Report⁶⁸ describes how a review of UK Biodiversity Action Plans identified several species

⁶² The Green Roof Organisation Green Roof Code: Green Roof Code of Best Practice for the UK 2011 (2011, Groundwork Sheffield)

⁶³ <http://www.thegreenroofcentre.co.uk/>

⁶⁴ Living Roofs (2007, Natural England)

⁶⁵ Green Roofs: their existing status and potential for conserving biodiversity in urban areas (2003, English Nature- Research Report 498)

⁶⁶ <http://www.environment-agency.gov.uk/business/sectors/91967.aspx> - sustainable construction

⁶⁷ The benefit of biodiversity from Green Roofs – Key design Consequences, Green Roofs for Healthy Cities, Chicago (2003, Brenneisen)

⁶⁸ Green Roofs: their existing status and potential for conserving biodiversity in urban areas (2003, English Nature- Research Report 498)

which could benefit from green roofs, including bats, several birds, beetles, flies, bees, wasps and spiders. In the UK, there is a particular interest in the use of green roofs as mitigation for habitats lost during urban regeneration, especially wasteland habitats on brownfield sites that can be a valuable habitat in their own right⁶⁹. Research in London and Basel has shown that well-designed extensive green roofs can provide an important refuge for rare invertebrates associated with brownfield sites and other dry, well-drained, low-nutrient habitats. They are an important habitat for rare bird species, especially the Black Redstart in the London area⁷⁰.

CIRIA's 'Building Greener' guidance document explores the planning, design, construction and maintenance issues surrounding the incorporation of green roofs, green walls and associated features in buildings. Particular attention is given to how these features can benefit the built environment by enhancing biodiversity, sustainable drainage and thermal efficiency.

⁶⁹ Living Roofs and Walls: Technical Report Supporting London Plan Policy (2008, Design for London for the Mayor of London)

⁷⁰ <http://www.wildaboutgardens.org/about/wildlife-gardening.aspx>

APPENDIX A3

POLICY CONTEXT SUMMARY

POLICY CONTEXT SUMMARY

This appendix sets out a summary of the policy context for GI delivery in Central Lincolnshire based on a review of relevant policies, strategies and guidance documents. This review has informed the development of the vision and objectives for the GI Strategy and helped ensure that the Strategy addresses opportunities for GI to meet and deliver a range of policy objectives.

European Policy Context

- Conservation of Wild Birds, Council Directive 79/409/EEC (The Birds Directive);
- Conservation of Natural Habitats and of Wild Fauna and Flora, Council Directive 92/43/EEC (The Habitats Directive);
- Air Quality Framework Directive, 96/62/EC and daughter Directives 99/30/EC, 2000/69/EC and 2002/3/EC;
- Water Framework Directive, 2000/60/EC;
- Assessment and Management of Flood Risks, Directive 2007/60/EC;
- The Ramsar Convention on Wetlands (1971); and
- European Landscape Convention (EU, 2000).

National Policy Context

The previous Government's **Sustainable Communities Plan (2003)**⁷¹ set out a national long-term programme of action for delivering sustainable communities and places in both urban and rural areas within England. It aims to address housing supply issues, and deliver a better quality of life for communities throughout the Country. The Plan contains two key elements that are of direct relevance to GI:

- *Liveability* - the Plan sets out how the Government intended to intensify efforts to improve the local environment of all communities including cleaner streets, improved parks and better public spaces; and
- *Protecting the countryside* - the Plan outlines how the countryside will be protected through measures such as maintaining/increasing current areas of land designated as green belt land and improving its accessibility, biodiversity and amenity value; and promoting more and better publicly accessible greenspace.

The focus on delivering a better quality of life or 'liveability' for communities and the emphasis on countryside protection supports the principles that underpin GI, and reinforces its importance in creating a healthy and enhanced environment.

In February 2011, the Coalition Government published **Mainstreaming Sustainable Development (2011)**⁷², which sets out the Government's vision for sustainable development and a package of measures to deliver it through the Green Economy, action to tackle climate change, protecting and enhancing the natural environment, and fairness and improving wellbeing, and building a Big Society. The Coalition Government is committed to sustainable development. This means making the necessary decisions now to realise the vision of stimulating economic growth and tackling the deficit, maximising wellbeing and protecting the environment, without negatively impacting on the ability of future generations to do the same. The coalition Government's refreshed vision and commitments build on the principles that underpinned the UK's 2005 Sustainable Development Strategy, by recognising the needs of the economy, society and the natural environment, alongside the use of good governance and sound science. Sustainable development recognises that the three 'pillars' of the economy, society and the environment are interconnected. The Government has initiated a series of growth reviews to put the UK on a path to strong, sustainable and balanced growth.

⁷¹ Sustainable Communities Plan (2003, ODPM)

⁷² Mainstreaming sustainable development – the Government's vision and what this means in practice (2011, DEFRA)

World Class Places (2009)⁷³ sets out the previous Government's strategy for improving quality of place, outlines the links between quality of place and various economic, social and environmental benefits. It acknowledges provision of greenspace and GI as central to quality of place, and places local authorities at the forefront of delivery through place shaping and planning.

Low Carbon Transport: a Green Future (2009)⁷⁴ presents the national strategy to move to a low carbon transport system. It acknowledges the benefits transport alternatives can have for the economy, health and environmental. GI strategies can contribute to the delivery of this national strategy, by aiding take up of public transport alternatives and planning for alternatives forms of transport such as cycle routes.

Active Travel Strategy (2010)⁷⁵ sets out the Government's strategy for getting more people walking and cycling more often and more safely. The Strategy aims to i) promotes better public health and well-being by increasing levels of physical activity, particularly among the most inactive people in our society; ii) increase accessibility and reduce congestion; and iii) improve air quality and reduce carbon emissions.

The UK Biodiversity Action Plan (1994)⁷⁶ describes the UK biological resources and commits a detailed plan for the protection of these resources. Since the creation of the UK BAP, devolution has led the four countries of the UK to produce their own country biodiversity groups and country biodiversity strategies. In 2007, however, a shared vision for UK biodiversity conservation was adopted by the devolved administrations and the UK governments, and is described in **Conserving Biodiversity: the UK Approach (2007)**⁷⁷. Its purpose is to set out the vision and approach to conserving biodiversity within the UK's devolved framework.

The recently published **Natural Environment White Paper 'The Natural Choice' (2011)**⁷⁸, the first White Paper on the natural environment in 20 years, outlines the Coalition Government's vision for the natural environment over the next 50 years and its ambition to ensure that the benefits of high quality natural environments are available to everyone. The White Paper sets out the Government's strategy to better protect, restore and improve England's natural environment. The proposals set out a detailed programme of action to repair damage done to the environment in the past, and urges everyone to get involved in helping nature to flourish at all levels – from neighbourhoods to National Parks. Plans contained in the White Paper are directly linked to the research in the **National Ecosystem Assessment** published in June 2011 that showed the strong economic arguments for safeguarding and enhancing the natural environment. The White Paper also acts on the recommendations of '**Making Space for Nature**', a report into the state of England's wildlife sites, led by Professor John Lawton and published in September 2010, which showed that England's wildlife sites are fragmented and not able to respond to the pressures of climate change and other land use pressures. Key measures in the White Paper, which also takes forward recommendations contained in '**Making Space for Nature**', include:

Reconnecting nature

- *New Nature Improvement Areas (NIAs), transforming rural and urban areas and providing bigger, connected sites for wildlife to live in and adapt to climate change. With a £7.5 million fund for 12 initial NIAs to demonstrate just what can be done. Professor Sir John Lawton has agreed to chair the panel to allocate funding.*
- *Biodiversity offsetting – new way for developers to ensure we don't lose wildlife sites and make them better by making and improving other sites.*
- *New Local Nature Partnerships to strengthen joined-up action across local agencies and organisations, with a £1 million available this year.*
- *Phasing out peat – working with the horticulture industry to phase out peat use, which will help to protect and restore our peatlands, which are valuable carbon sinks, habitats and part of our ecological network. A task force to consider all options to phase out use of peat in the supply chain will be chaired by Dr Alan Knight OBE.*

⁷³ World Class Places: The Government's strategy for improving quality of place (2009, DCLG for HM Government)

⁷⁴ Low Carbon Transport: a Green Future (2009, Department for Transport for HM Government)

⁷⁵ Active Travel Strategy (2010, Department for Transport)

⁷⁶ The UK Biodiversity Action Plan (1994, HM Government)

⁷⁷ Conserving Biodiversity: the UK Approach (2007, Defra on behalf of the UK Biodiversity Partnership)

⁷⁸ Natural Environment White Paper 'The Natural Choice: securing the value of nature' (2011, DEFRA for HM Government)

Connecting people and nature for better quality of life

- Green Areas Designation allowing local communities to give protection to areas that are important to them for recreation, the view or their importance for wildlife.
- Better urban green spaces for the benefit of cities and towns. Support for parks, gardens, and tree planting which benefit people and nature alike
- More children experiencing nature by learning outdoors, through practical support to schools and reducing red-tape for outdoor learning.
- Strengthening local public health activities which connect people with nature for better health
- New environmental volunteering initiative “Muck in 4 Life” to improve places in towns and countryside for people and nature to enjoy.

Capturing and improving the value of nature

- Natural Capital Committee – an independent body to report to the Government’s economic affairs committee chaired by the Chancellor of the Exchequer. This body will put the value of nature at the heart of the Government’s economic thinking, and advise Government about the best way of securing our natural assets for the future.
- An annual statement of green accounts for UK Plc – showing where our economy has withdrawn from the value of nature’s bank balance, and where we have invested in it. This will help measure green growth alongside GDP.
- A business-led Task Force chaired by Kingfisher Group Chief Executive Officer Ian Cheshire, to expand the UK business opportunities from new products and services which are good for the economy and nature alike.

The White Paper aims to improve the quality of the natural environment across England, halt the decline in habitats and species, and strengthen the connection between people and nature. The new way of looking at nature will help the growth of a green economy which treats natural capital in a responsible and fair way, encouraging businesses to use that capital sustainably. The actions contained in the Natural Environment White Paper will create a radical shift on how we view our natural assets by incorporating the natural environment into economic planning and ensuring there are opportunities for businesses that are good for nature and good for a strong green economy.

The recently published **Biodiversity 2020: A strategy for England’s wildlife and ecosystem services**⁷⁹ builds on the Natural Environment White Paper to set out the Government’s strategic direction for biodiversity policy over the next decade. The strategy’s mission is ‘to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people.’ The strategy proposes action in four priority areas:

‘A more integrated large-scale approach to conservation on land and at sea.

The independent review of England’s wildlife sites and ecological network, chaired by Professor Sir John Lawton, concluded that England’s collection of wildlife areas (both legally protected areas and others) does not currently represent a coherent and resilient ecological network capable of responding to the challenges of climate change and other pressures. The review concluded that establishing such a network would effectively conserve biodiversity and ecosystem services, delivering many benefits to people, while also making efficient use of scarce land and resources. Effectively establishing coherent and resilient ecological networks on land and at sea requires a shift in emphasis, away from piecemeal conservation actions and towards a more effective, more integrated, landscape-scale approach. Actions we will take include: funding a competition to support the creation of Nature Improvement Areas in twelve initial areas, providing £7.5 million in the period 2011 to 2015. Lessons learnt will help us extend this approach; increasing the proportion of Sites of Special Scientific Interest (SSSIs) in favourable condition; establishing a well managed, ecologically coherent network of Marine Protected Areas (MPAs). By the end of 2016 this will contain in excess of 25% of English waters; agreeing a programme of targeted action with partners for the recovery of priority species.

⁷⁹Biodiversity 2020: A strategy for England’s wildlife and ecosystem services (2011, Defra)

Putting people at the heart of policy

It is crucial to engage more people in biodiversity issues so that they personally value biodiversity and know what they can do to help. Civil society organisations play a front line role, directly engaging and enthusing the public about biodiversity. We will work with them to engage more people and empower them to make a difference. Actions we will take include: working with key stakeholders to consider how the nature conservation sector can engage the public even more effectively in future and how government might support this; getting more children learning outdoors, removing barriers and increasing schools' abilities to teach outdoors; establishing a new green areas designation, empowering communities to protect local environments that are important to them; helping people 'do the right thing', at home, when shopping, or as volunteers. For example, we will provide funding to support the Big Wildlife Garden scheme and launch a new phase of the MuckIn4Life campaign, offering volunteering opportunities to improve the quality of life in towns, cities and the countryside. We also need to take better account of how much nature does for us. Biodiversity provides a range of benefits to people, but these are often not taken into account in decision-making. This is often because biodiversity benefits are outside the market economy, meaning that they are unpriced and therefore too easily ignored in financial decisions. This strategy therefore draws on the Natural Environment White Paper, and aims to ensure that the value of biodiversity is reflected in decision-making in the public and private sector. Developing new and innovative financing mechanisms to direct more funding towards the achievement of biodiversity outcomes will be a key part of this.

Reducing environmental pressures

We need to ensure biodiversity is taken into account by decision-makers within sectors which have the greatest direct influence on our biodiversity, and we need to reduce direct pressures on our biodiversity. The approach will vary from sector to sector, covering a variety of uses of land and sea. We have identified the key sectors we will work with and the actions we will take. These include: Agriculture – we will improve the delivery of environmental outcomes from agricultural land management practices, whilst increasing food production by, for example, reviewing how we use advice and incentives, and how we use agri-environment schemes; Forestry – we will bring a greater proportion of our existing woodlands into sustainable management and expand the area of woodland in England; Planning and Development – through reforms of the planning system, we will take a strategic approach to planning for nature. We will retain the protection and improvement of the natural environment as core objectives of the planning system. We will pilot biodiversity offsetting, to assess its potential to deliver planning policy more effectively; Water Management – we will protect water ecosystems, including habitats and species, through a river basin planning approach. We will also promote approaches to flood and erosion management which conserve the natural environment and improve biodiversity; Marine Management – we will develop 10 Marine Plans which integrate economic, social and environmental considerations; Fisheries – we will ensure fisheries management supports wider environmental objectives, including the achievement of Good Environmental Status under the Marine Strategy Framework Directive. We will also tackle the problems of air pollution and invasive non-native species.

Improving our knowledge

A good evidence base is an essential element of delivering the strategy effectively. It will help us make sure we are doing the right thing in the right place, and using our resources effectively, focusing on action that will have the most impact. In England we are fortunate in having widely available information on the status and trends in biodiversity, with much of that information collected by volunteers – an example of how important the wide biodiversity partnership is to the delivery of this strategy. The UK is also the first country to have undertaken a complete assessment of the benefits that nature provides, through the innovative NEA. However, there remain gaps in our knowledge. Also, evidence is only helpful if it is accessible. So as part of delivering this strategy we need to improve access to knowledge through sharing of data and clear communication of evidence – putting power into the hands of people to act and hold others to account. Actions we will take include: Investing almost £5 million over the next three years in England to directly support national and local organisations, and groups that co-ordinate volunteer recording and to contribute to the work of the National Biodiversity Network; Investing a further £1.2 million to support data sharing, creating a new fund for biodiversity recording in the voluntary sector and, in partnership with volunteer groups, develop new and innovative approaches to biodiversity

recording; Launching three area-based pilot studies to trial new strategic approaches to wildlife recording, data sharing and interpretation services to better meet both local and national needs, working with local partnerships and local centres of expertise; Following the NEA, we will support a further phase of ground-breaking research to identify the mix of future actions most likely to secure best overall value from our ecosystems, for nature and for people. It will also develop practical tools to assist decision-makers.

National planning policy is currently set out in Planning Policy Statements (PPS) and Planning Policy Guidance (PPG) notes. The PPSs/PPGs of relevance to GI planning are listed below, which highlights the range of topics that GI can contribute positively to:

- **Planning Policy Statement (PPS) 12 - Creating Strong and Prosperous Communities through Local Spatial Planning (2008)**⁸⁰ sets out current government policy on local spatial planning and how Local Development Frameworks should be prepared. The role GI has to play in achieving sustainable communities is given particular prominence by PPS12. It defines GI as *'a network of multifunctional green space, both new and existing, both rural and urban, which supports the natural and ecological processes and is integral to the health and quality of life of sustainable communities'*. In relation to the preparation of Core Strategies, PPS12 advises that they *'should be supported by evidence of what physical, social and green infrastructure is needed to enable the amount of development proposed for the area, taking account of its type and distribution'*. It goes on to state that the GI planning process should identify, as far as possible: GI needs and costs; phasing of development; funding sources; and responsibilities for delivery. PPS12 also advises that *'infrastructure planning for the core strategy should also include the specific infrastructure requirements of any strategic sites which are allocated in it'* and that *'local authorities should explore and exploit opportunities for joint working on core strategies'*. The Statement recognises that *'many issues critical to spatial planning do not respect local planning authority boundaries'*. This is particularly the case with GI networks that often cover larger areas, which makes planning an individual district in isolation a difficult task. PPS12 also advises that *'critical discussions on infrastructure capacity and planning may be more effectively and efficiently carried out over a larger area than a single local planning authority area through joint working'*.
- **Planning Policy Statement 1 - Delivering Sustainable Development (2005)**⁸¹: sets out the overarching planning policies on the delivery of sustainable development through the planning system. It recognises that *'the condition of our surroundings has a direct impact on the quality of life, and the conservation and improvement of the natural and built environment brings social and economic benefit for local communities. Planning should seek to maintain and improve the local environment and help to mitigate the effects of declining environmental quality through positive policies on issues such as design, conservation and the provision of public space.'*
- **Planning and Climate Change –a Supplement to Planning Policy Statement 1 (2007)**⁸²: sets out how planning, in providing for the new homes, jobs and infrastructure needed by communities, should help shape places with lower carbon emissions and resilient to the climate change now accepted as inevitable. It states that in selecting land for development, planning authorities should take into account *'the contribution to be made from existing and new opportunities for open space and green infrastructure to urban cooling, sustainable drainage systems, and conserving and enhancing biodiversity'*. It also states that local authorities should expect new development to *'provide public and private open space as appropriate so that it offers accessible choice of shade and shelter, recognising the opportunities for flood storage, wildlife and people provided by multifunctional greenspaces'*.
- **Eco-Towns – a Supplement to Planning Policy Statement 1 (2009)**⁸³: provides the standards any eco-town will have to adhere to. Eco-town standard ET8 'Climate change adaptation' states that *'eco-towns should deliver a high quality local environment and meet the standards on water, flooding, green infrastructure and biodiversity set out in this PPS, taking into account a changing climate for these, as well incorporating wider best practice on tackling overheating and impacts of a changing*

⁸⁰ Planning Policy Statement 12 – Creating Strong and Prosperous Communities through Local Spatial Planning (2008, DCLG)

⁸¹ Planning Policy Statement 1 - Delivering Sustainable Development (2005, ODPM)

⁸² Planning and Climate Change –a Supplement to Planning Policy Statement 1 (2007, DCLG)

⁸³ Eco-Towns – a Supplement to Planning Policy Statement 1 (2009, DCLG)

climate for the natural and built environment'. Eco-town standard ET 14 'Green Infrastructure' states that 'forty per cent of the eco-town's total area should be allocated to green space, of which at least half should be public and consist of a network of well-managed, high quality green/open spaces which are linked to the wider countryside. Planning applications should demonstrate a range of types of green space, for example community forests, wetland areas and public parks. The space should be multifunctional, e.g. accessible for play and recreation, walking or cycling safely, and support wildlife, urban cooling and flood management' and that 'particular attention should be given to land to allow the local production of food from community, allotment and/or commercial gardens'. Eco-Town standard ET 16 'Biodiversity' states that 'Eco-towns should demonstrate a net gain in local biodiversity and planning permission may not be granted for eco town proposals which have a significant adverse effect on internationally designated nature conservation sites or Sites of Special Scientific Interest' and that 'a strategy for conserving and enhancing local biodiversity should be produced to accompany planning applications for eco-towns. [...] It should set out priority actions in line with the England Biodiversity Strategy and Local Biodiversity Action Plans, including appropriate mitigation and/or compensation measures, required to minimise adverse effects on individual species and habitats of principal importance and to enhance local biodiversity overall'.

- **Planning Policy Statement 3 – Housing (4th edition, 2011)⁸⁴:** underpins the delivery of the Government's strategic housing policy objectives. It states that 'local planning authorities should develop design policies that set out the quality of development that will be expected for the local area, aimed at: i) creating places, streets and spaces which meet the needs of people, are visually attractive, safe, accessible, functional, inclusive, have their own distinctive identity and maintain and improve local character; and ii) promoting designs and layouts which make efficient and effective use of land, including encouraging innovative approaches to help deliver high quality outcomes'. It also states that matters to consider when assessing design quality include the extent to which the proposed development 'provides, or enables good access to, community and green and open amenity and recreational space (including play space) as well as private outdoor space such as residential gardens, patios and balconies' and 'provides for the retention or re-establishment of the biodiversity within residential environments.'
- **Planning Policy Statement 5 – Planning for the Historic Environment (2010)⁸⁵:** sets out the Government's planning policies on the conservation of the historic environment and 'overarching aim that the historic environment and its heritage assets should be conserved and enjoyed for the quality of life they bring to this and future generations'. One of the Government's objectives for planning for the historic environment is to 'deliver sustainable development by ensuring that policies and decisions concerning the historic environment: i) recognise that heritage assets are a non-renewable resource; ii) take account of the wider social, cultural, economic and environmental benefits of heritage conservation; and iii) recognise that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term'.
- **Planning Policy Statement 7 – Sustainable Development in Rural Areas (2004)⁸⁶:** sets out the Government's planning policies for rural areas, including country towns and villages and the wider, largely undeveloped countryside up to the fringes of larger urban areas. Key objectives include: 'to raise the quality of life and environment in rural areas through the promotion of thriving, inclusive and sustainable rural communities; promote sustainable economic growth and diversification; ensure good quality, sustainable development that respects local distinctiveness and the intrinsic qualities of the countryside; achieve a high level of protection for our most valued landscapes and environmental resources; promotes more sustainable patterns of development and support an urban renaissance; and promote sustainable, diverse and adaptable agricultural sectors.'
- **Planning Policy Statement 9 – Biodiversity and Geological Conservation (2005)⁸⁷:** sets out planning policies on protection of biodiversity and geological conservation through the planning system. It highlights the role that 'networks of habitats can play in linking sites of biodiversity importance' and states that 'local authorities should aim to maintain networks by avoiding or repairing the fragmentation and isolation of natural habitats through policies in plans. Such networks should be protected from development, and, where possible, strengthened by or integrated within it. This may

⁸⁴ Planning Policy Statement 3 – Housing (2011, DCLG, 4th edition)

⁸⁵ Planning Policy Statement 5 – Planning for the Historic Environment (2010, DCLG)

⁸⁶ Planning Policy Statement 7 – Sustainable Development in Rural Areas (2004, DCLG)

⁸⁷ Planning Policy Statement 9 – Biodiversity and Geological Conservation (2005, ODPM)

be done as part of a wider strategy for the protection and extension of open space and access routes such as canals and rivers, including those within urban areas'. It also highlights the role of previously developed land to host locally important biodiversity and the importance of retaining or incorporating such interest into development. It also notes the opportunities for building-in biodiversity features as part of the design of development proposals.

- **Planning Policy Statement 25 – Development and Flood Risk (2nd edition, 2010)**⁸⁸: sets out the Government's planning policies for management of flood risk within the planning process. It states that '*local planning authorities should prepare and implement planning strategies that help to deliver sustainable development by appraising, managing and reducing risk*'. In relation to the latter it states that '*opportunities offered by new development to reduce the causes and impacts of flooding should be sought e.g. surface water management plans; making the most of the benefits of green infrastructure for flood storage, conveyance and SUDS; re-creating functional floodplain; and setting back defences*'.
- **Planning Policy Guidance 13 – Transport (2011)**⁸⁹: sets out the objectives to integrate planning and transport at the national, strategic and local level and to promote more sustainable transport choices both for carrying people and for moving freight. Its key objectives are to '*i) promote more sustainable transport choices for both people and for moving freight; ii) promote accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling; and iii) reduce the need to travel, especially by car*'. It states that '*new development should help to create places that connect with each other sustainably, providing the right conditions to encourage walking, cycling and the use of public transport*'.
- **Planning Policy Guidance 17 – Planning for Open Space, Sport and Recreation (2002)**⁹⁰: sets out the requirement for local authorities to undertake robust assessments of the existing and future needs of their communities for open space, sports and recreational facilities. It highlights that '*open spaces, sport and recreation all underpin people's quality of life*' and that '*well designed and implemented planning policies for open space, sport and recreation are therefore fundamental to delivering broader Government objectives including: supporting an urban renaissance, supporting a rural renewal, promotion of social inclusion and community cohesion, health and well-being and promoting more sustainable development*'.

The Government is committed to a reform of the planning system to give stronger powers to local councils, communities, neighbourhoods and individuals. The planning policy initiatives that underpin the localism agenda, and which will have an increasing impact on the Government's work over the next five years, are set out in **The Coalition: our Programme for Government (2010)**⁹¹. Of particular relevance to GI, the Government commits in this document to:

- '*Publish and present to Parliament a simple and consolidated national planning framework covering all forms of development and setting out national economic, environmental and social priorities*';
- '*Maintain the Green Belt, Sites of Special Scientific Interest (SSSIs) and other environmental protections, and create a new designation – similar to SSSIs – to protect green areas of particular importance to local communities*';
- '*Introduce measures to protect wildlife and promote green spaces and wildlife corridors in order to halt the loss of habitats and restore biodiversity*';
- '*Launch a national tree planting campaign*';
- '*Take forward the findings of the Pitt Review to improve our flood defences, and prevent unnecessary building in areas of high flood risk*';
- '*Create a presumption in favour of sustainable development in the planning system*'; and
- '*Support sustainable travel initiatives, including the promotion of cycling and walking, and will encourage joint working between bus operators and local authorities.*'

⁸⁸ Planning Policy Statement 25 – Development and Flood Risk (2010, DCLG, 2nd edition)

⁸⁹ Planning Policy Guidance 13 – Transport (2011, DCLG, 2nd edition)

⁹⁰ Planning Policy Guidance 17 – Planning for Open Space, Sport and Recreation (2002, ODPM)

⁹¹ The Coalition: our Programme for Government (2010, HM Government)

The Government's **draft National Planning Policy Framework**⁹² was published for consultation in July 2011. DCLG provides the following overview of the draft Framework:

'It streamlines national planning policy into a consolidated set of priorities to consider when planning for and deciding on new development. These important principles will help communities enjoy a better quality of life, both now and in the future. The draft Framework sets national priorities and rules only where it is necessary to do so. It will help ensure that planning decisions reflect genuine national objectives - such as the need to safeguard the natural environment, combat climate change, and to support sustainable local growth - while allowing for local authorities and communities to produce their own plans, reflecting the distinctive needs and priorities of different parts of the country.

The principle of sustainable development permeates the draft of the new Framework; that the actions we take to meet our needs today must not compromise the ability of future generations to meet their own. And that planning decisions should not only protect, but, wherever possible, enhance biodiversity and improve people's access to our natural heritage.

Main points in the Draft Framework, of relevance to GI, are listed below:

'PROTECTING AND ENHANCING THE ENVIRONMENT:

Green Belt and natural environment

The Framework re-affirms the Government's commitment to maintaining Green Belt protections to prevent urban sprawl, as pledged in the Coalition Agreement. All inappropriate development harmful to Green Belt remains prohibited. Local authorities are encouraged to positively enhance the use of Green Belt, including by opening up walking routes, and improving biodiversity and damaged landscapes for the enjoyment of all.

The Framework also retains protection for Areas of Outstanding Natural Beauty, National Parks, Sites of Special Scientific Interest and other environmental designations which protect the character of our country's landscape, stop unsustainable urban sprawl and preserve wildlife.

The Framework takes forward the Natural Environment White Paper's aims to improve the quality of the natural environment across England, halt the decline in habitats and species, and strengthen the connection between people and nature.

Green space designation

The Framework sets out a new right for local communities to protect green areas of particular importance to them. They will be able to earmark for special protection local green space land that is important to local life - whether its value is in its natural beauty, its historic resonances, its recreational value, its tranquillity or its richness in wildlife. These sites will be planned so they complement and do not undermine investment in homes, jobs and other essential services.

Sustainable transport

The Government is committed to cutting down pollution and congestion through the use of public transport. The Framework makes clear that local authorities should seek to ensure good access to high quality local public transport for new developments, with priority given to cyclists and pedestrians. It encourages decision-makers to provide charging points for electric cars and other low emission vehicles. Wherever possible, key facilities essential to local life such as schools and shops should be within walking distance of most properties.

Biodiversity

A healthy and diverse natural environment is crucial to our sense of wellbeing. The Framework underlines that the planning system should seek not just to protect, but, where possible, to enhance biodiversity – making sure we don't just have isolated pockets of wildlife, but rich and connected green spaces for all kinds of species to thrive. Planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland.

⁹² Draft National Planning Policy Framework (2011, DCLG)

Climate change

The Framework confirms planning's important role in tackling climate change and making the transition to a low carbon economy. Planning can help secure radical reductions in carbon emissions through the appropriate location and layout of new development, support for energy efficiency improvements to existing buildings and backing the delivery of renewable and low carbon energy including community-led initiatives. The framework paves the way for green transport of the future – the electric car- by encouraging decision makers to provide charging points;

We also want planning to ensure new development is future proofed against climate change through getting its location and design right (for example making sure that new housing estates are not at risk of flooding and have good flood storage capacity to reduce flooding elsewhere).

The Framework also meets the Coalition's commitment to preventing unnecessary building in areas of high flood risk.

Access to the coast

The Framework highlights the Government's ambition not only to protect our extraordinary coastline, but also to ensure people have access to it; it states that development should not curtail a continuous signed and managed route around the coast for all to enjoy

PROMOTING SUSTAINABLE GROWTH AND PROSPERITY:

Presumption in favour of sustainable development

The presumption is designed to help turn the planning system round - from one focused on barriers to one that prioritises opportunities. It requires councils to work closely with businesses and communities to plan positively for the needs of each area. And it makes clear that where plans are not in place or up-to-date, development should be allowed unless this would compromise the key principles for sustainability in the Framework, including protecting the Green Belt and Areas of Outstanding Natural Beauty.

The presumption will encourage plan-making by councils and communities, giving them a greater say in how they meet their development needs. It will also give communities, developers and investors greater certainty about the types of applications that are likely to be approved, and will help to speed up the planning process.

Historic environment

The framework reaffirms protections for the historic environment and heritage. Development causing substantial harm or loss to an important heritage asset remains prohibited, unless in wholly exceptional circumstances. Similar protections should be given to unofficial sites of archaeological interest if it can be demonstrated they are of substantial significance. Local councils are encouraged to set out how they will protect and improve heritage most at risk through neglect or decay, for the enjoyment for communities now and in the future. They should have up to date evidence about the historic environment in their areas and use it to assess the significance of heritage assets and contribution they make to the environment.

Design

Good design is an essential part of sustainable development. The planning system should promote high quality design for all development – whether individual buildings or whole estates, municipal facilities or parks, and public or private spaces. Local Plans, including any neighbourhood plans, should set out the quality of development expected for an area, ensuring development that reflects the character and identity of local surrounding areas. Developers will be expected to work closely with those directly affected by their proposals to evolve design proposals that take account of the views of the community.'

Paragraph 167 states that 'local planning authorities should set out a strategic approach in their Local Plans, planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure.'

A Strategy for England's Trees, Woods and Forests (2007)⁹³ identifies five aims relating to the future of England's trees woods and forests: providing a sustainable resource for now and future generations; ensuring tree stock are resilient and adaptable to climate change; protecting and enhancing the cultural and amenity values of trees and woodland; increasing the contribution that trees, woods and forests can make to quality of life; promoting and improving markets for sustainable woodland products and ecosystem services where this will deliver identifiable public benefits. The strategy is supported by a five-year Delivery Plan which focuses on establishing evidence, strategic direction and programmes that will help coordinate regional and local delivery.

The former Countryside Agency issued a number of publications supporting the important role of GI. In particular, both **The Countryside in and around Towns (2005)**⁹⁴ and **Delivering a New Urban Fringe (2006)**⁹⁵ explained the importance of urban parks, country parks and other green spaces being joined up to form continuous green corridors between town and country.

Guidance for Local Authorities on Implementing the Biodiversity Duty (2007)⁹⁶ specifically refers to the importance of incorporating GI into development plans to help deliver many of the social, economic and environmental benefits required for sustainable communities.

The GI approach is recognised by Natural England to be an essential component of sustainable development and to provide an effective way of delivering a wide range of ecosystem services, quality of life and health benefits. **Natural England's Housing Growth and Green Infrastructure Policy (2008)**⁹⁷ expresses the need for:

- Growth to be located in sustainable locations;
- Environmental capacity to be a central consideration in decision making concerning new development;
- Improved environmental quality standards for all new housing development; and
- GI to be integral to the creation of sustainable new communities throughout England.

Natural England has prepared guidance on its approach to GI delivery to complement this policy statement. The **Natural England GI Guidance (2009)**⁹⁸ is intended to assist Natural England, its partners and stakeholders (such as local authorities and developers) by outlining the concept, principles and benefits of GI. This guidance advocates that a GI Strategy is a pre-requisite for sustainable planning, in particular for areas such as Central Lincolnshire where significant levels of growth are planned. Natural England's guidance recommends that GI strategies are developed by local partnerships for these areas to identify where investment in conserving, connecting and re-building GI can provide greatest benefits.

The Town and Country Planning Association's (TCPA) publication **The Essential Role of Green Infrastructure: Eco-towns Green Infrastructure Worksheet (2008)**⁹⁹ provides guidance in support of the Eco-Town Supplement to PPS1. It recognises that GI is essential to both the environmental sustainability and long term social and economic success of eco-towns. Although specifically intended for eco-town developers and planners, the application of its principles and guidance on implementation of GI is advocated by Natural England as best practice for all other forms of development regardless of their type or location. The GI Worksheet recommends that GI should be:

- *'A primary consideration in planning, developing and maintaining an eco-town (and other development);*
- *Provided as a varied, widely distributed, strategically planned and interconnected network;*
- *Be factored into land values and decisions on housing densities and urban structure;*

⁹³A Strategy for England's Trees, Woods and Forests (2007, DEFRA/statement prepared by the UK Biodiversity Standing Committee on behalf of the UK Biodiversity Partnership)

⁹⁴The Countryside in and around Towns (2005, Countryside Agency and Groundwork)

⁹⁵Delivering a New Urban Fringe: Bringing life back into the landscapes around our towns and cities (2006, Countryside Agency; English Nature and Rural Development Service)

⁹⁶Guidance for Local Authorities on Implementing the Biodiversity Duty (2007, DEFRA)

⁹⁷ Natural England Policy Position Statement: Housing Growth and Green Infrastructure (2008, Natural England)

⁹⁸ Green Infrastructure Guidance (2009, Natural England)

⁹⁹The Essential Role of Green Infrastructure: Eco-towns Green Infrastructure Worksheet - Advice to Promoters and Planners (2008, TCPA)

- Accessible to local people and provide alternative means of transport;
- designed to reflect and enhance the area's locally distinctive character, including local landscapes and habitats;
- Supported by a GI Strategy;
- Multifunctional, seeking the integration and interaction of different functions on the same site and across a GI network as a whole;
- Implemented through co-ordinated planning, delivery and management that cuts across local authority departments and boundaries and across different sectors;
- Able to achieve physical and functional connectivity between sites at all levels and right across a town, city or sub-region;
- Implemented primarily through focused GI strategies and the spatial planning system of Regional Spatial Strategies/Regional Plans and Local Development Frameworks, and it should be formally adopted within these planning policy documents; and
- Established permanently, with financial support for continued maintenance and adaptation'.

TCPA's **Biodiversity Positive: Eco-Towns Biodiversity Worksheet (2009)** provides guidance in support of the Eco-Town Supplement to PPS1, and identifies the essential steps required to ensure that the design, development and long term management of eco-towns result in a sustained positive outcome for biodiversity. The principle objectives for biodiversity are as follows:

- *Protecting and enhancing the best of existing biodiversity: key habitat areas of sufficient quality and quantity to support both characteristic and uncommon species should be sustained. These areas include designated conservation sites, and habitats of national, regional and local importance, where environmental conservation is the main priority. Mechanisms and resources will be required for long-term management of these habitats.*
- *Mitigating the impact of development and securing net biodiversity gain: 'supplementary' or 'transitional' habitats (in addition to key habitats), where nature conservation is not the primary concern, will be important in sustaining more widespread and common species, as well as providing buffering for key habitats. These areas may also provide other Green Infrastructure functions.*
- *Integrating biodiversity with the built environment: eco-towns should incorporate a high degree of permeability for wildlife within the built environment, helping to increase and sustain biodiversity. Planning and designing for this is particularly important due to recent changes in building regulations leaving very few roosting or nesting opportunities for certain species in dwellings.*
- *Increasing biodiversity's resilience and ability to adapt to climate change: climate is one of the most important factors affecting behaviour, abundance and distribution of species, as well as influencing the ecology of habitats and ecosystems. Changes due to climate change are already being observed.*

Key elements of an Eco-town biodiversity strategy include: siting, location and context; masterplanning; design; management; funding; and governance and accountability.

Natural England also encourages the concept that everyone should have access to high quality natural and semi-natural greenspace near to where they live and have set standards to reflect this in **Nature Nearby: Accessible Natural Greenspace Guidance (2010)**. The Nature Nearby document promotes the improvement of access to greenspace both in terms of distance and within site accessibility. It also requires more consideration of the quality, connectivity and biodiversity value of these spaces and that appropriate management is put in place to ensure these aspects are expanded upon. The document provides guidance on the amount, quality and visitor services of accessible natural green spaces that Natural England believe everyone is entitled to, and provides advice on how they can be delivered. Natural England expects that publicly accessible natural greenspace is delivered to meet:

- An Accessibility and Quantity Standard – to ensure equitable provision both close to home and within sustainable transport distances, ie. Natural England's Accessible Natural Greenspace Standard (ANGSt);
- Service Standards – for core services and facilities for each site type; and
- A national Quality Standard – i.e. the Green Flag Award scheme.

The GI approach is also increasingly reflected in the work of other Government agencies. For example, **English Heritage** has made its commitment to GI clear by stating that the GI concept offers significant opportunities for the protection and enhancement of the historic environment through site specific projects and integrated landscape conservation initiatives, and that it facilitates the use of historic and cultural elements of the landscape for education and for promoting tourism. Likewise, the **Environment Agency** has highlighted opportunities through integration of GI for implementation of creative solutions arising from flood risk assessment and management schemes, and water resource planning and conservation that can generate the provision of GI links and wider benefits. The **Commission for Architecture and the Built Environment (CABE)** and **CABESpace**, which now form part of the Design Council, recognise GI as an integral process that supports many of their aims and aspirations for securing quality in the design of parks and public spaces and the built environment through the spatial planning system. CABE produced a range of valuable reports on the importance of green space and the requirements needed to ensure that maintenance, enhancement and provision of green space is given sufficient priority within the planning sector, e.g. **Green Spaces, Better Places (2002)**¹⁰⁰ and **Managing Green Spaces: Seven Ingredients for Success (2010)**¹⁰¹.

In their position statement **Green Infrastructure: Connected and Multifunctional Landscapes (2009)**¹⁰² from, **The Landscape Institute** ‘calls for GI to be afforded the same priority as more conventional infrastructural components; a priority that the concept rightly deserves given its critical role in addressing a wide range of pressing environmental, social and economic challenges. The Landscape Institute believes that green infrastructure (GI) represents an approach to land use that has a critical role in meeting many of the environmental, social and economic challenges that we are faced with. It achieves this through its multifunctional and connected nature and is underpinned by the concept of ecosystem services, an approach which recognises the many benefits that are generated by natural ecosystems.’ In recognition of the importance of GI, the Position Statement is designed to:

- ‘Explain the many benefits of GI and the policy objectives it can help achieve;
- Demonstrate the critical role that landscape practitioners (landscape architects, managers and scientists) have to play in the development of GI; and
- Show how GI works.’

In summary, it is clear that the GI concept has become increasingly established in national policy and guidance as having an essential role to play in helping to deliver sustainable development and meet social, environmental and economic objectives.

Regional Policy Context

The Coalition Government proposes to abolish regional spatial planning under the Localism Bill¹⁰³, however much of the evidence base underpinning the East Midlands Regional Strategies will continue to remain relevant to strategic GI planning are therefore summarised below.

The **Integrated Regional Strategy (2008)**¹⁰⁴ (IRS) is the Sustainable Development Framework for the East Midlands region. The IRS draws together the key issues and challenges for the East Midlands and ensures that the wide ranging strategies and action plans across the region are integrated and compatible. The IRS outlines five priorities for the region:

- Reduce inequalities and improve community cohesion in the region;
- Conserve and enhance the natural environment;
- Create sustainable and healthy communities throughout the region;
- Improve sustainable economic performance and competitiveness; and
- Reduce the impacts on and of climate change, and use natural resources more efficiently.

¹⁰⁰ Green Spaces, Better Places (2002, CABE Space)

¹⁰¹ Managing Green Spaces: Seven Ingredients for Success (2010, CABE Space)

¹⁰² Green Infrastructure: Connected and Multifunctional Landscapes (2009, The Landscape Institute)

¹⁰³ The Localism Bill was introduced to Parliament on 13 December 2010, and was given Royal Assent on 15 November 2011. It includes provisions for the abolition of ‘Regional strategies’.

¹⁰⁴ East Midlands Integrated Regional Strategy Framework (2008, East Midlands Regional Assembly)

The IRS identifies 20 key strategies, three of which are particularly significant to the development of the Central Lincolnshire GI Study: the East Midlands Regional Plan; the Regional Economic Strategy; and the Regional Environment Strategy.

The **East Midlands Regional Plan (2009)**¹⁰⁵ provides a broad development strategy for the region up to 2026 and represents the spatial element of the IRS. Policy 1 of the RSS Core Strategy seeks to secure the delivery of sustainable development within the East Midlands by requiring that all strategies, plans and programmes having a spatial impact should meet a number of Regional Core Objectives, including *'To protect and enhance the environmental quality of urban and rural settlements to make them safe, attractive, clean and crime free places to live, work and invest in, through promoting... "green infrastructure"'*. Policy 2 of the Core Strategy (Promoting Better Design) requires that *'The layout, design and construction of new development should be continuously improved, including in terms of reducing CO2 emissions and providing resilience to future climate change, by...taking account of the need to develop carbon sinks and "green infrastructure" networks and provide for access to open space and the enhancement of biodiversity and landscape quality.'* Sections 3.3.13 – 3.3.15 also refer to the role of biodiversity and geodiversity within the region.

The Spatial Strategy in Section 2 of the East Midlands Regional Plan provides the framework for meeting the Region's development needs in a way that promotes a more sustainable pattern of development. The Spatial Strategy outlines regional priorities for both urban and rural communities. Policy 3 'Distribution of New Development' focuses proposals for future growth, within Central Lincolnshire, on the built up area of Lincoln (Principal Urban Area). It also states that 'the development needs of other settlements and rural areas should also be provided for'. In relation to Central Lincolnshire, paragraph 2.4.6 states that, *'The "Main Towns of **Gainsborough** and **Sleaford** provide a range of higher order district-wide services and facilities' and that 'Local Planning Authorities should allocate appropriate amounts of development land in these towns to maintain viability, promote regeneration or allow growth, depending on local circumstance'.*

Policy 13a 'Regional Housing Provision' in Section 3 of The East Midlands Regional Plan sets out the level of growth for Central Lincolnshire¹⁰⁶. The Central Lincolnshire Authorities have been supportive of the level of growth proposed. The total housing provision figures in the table below are the figures that local planning authorities should plan for over the plan period.

	Annual Requirement	Residual Annual Requirement (3)	Total Requirement 2006-26	Residual Requirement 2010-26 (3)
Central Lincolnshire HMA	2,030	2,068	40,600	35,162
Lincoln Policy Area	1258.5	1,290	25,170	21,925
Lincoln Principal Urban Area (1)	990	1,050	19,800	17,856
West Lindsey (2)	480	-	9,600	-
North Kesteven (2)	560	-	11,200	-

(1) The figure for Lincoln is for the whole of the Lincoln PUA including completions, commitments, urban capacity and potential urban extensions in those parts of the Lincoln PUA that lie in North Kesteven and West Lindsey

(2) The figures for North Kesteven and West Lindsey do not include contributions from those parts of the Lincoln PUA that lie in these districts, including completions, commitments, urban capacity or potential urban extensions

(3) Figures drawn from the Central Lincolnshire Strategic Housing Land Availability Assessment March 2010

The following priorities for the Central Lincolnshire HMA, set out in Section 3 of the Regional Plan, provide the strategic context for determining housing provision at district level:

- *'Significantly strengthening the role of Lincoln as a Principal Urban Area through urban intensification and planned and sustainable urban extensions;*
- *Supporting the regeneration of Gainsborough;*
- *Strengthening the roles of Sleaford, Caistor and Market Rasen;*

¹⁰⁵ East Midlands Regional Plan - RSS8 (2009, East Midlands Regional Assembly)

¹⁰⁶ The weight to be adhered to these figures will need to be considered as details of the new Government planning proposals emerge and progress

- *Meeting affordable housing needs in a way that promotes a more sustainable pattern of development.'*

Policy 39 'Regional Priorities for Energy Reduction and Efficiency' in Section 3 of The East Midlands Regional Plan states that¹⁰⁷: 'Local Authorities, energy generators and other relevant public bodies should: i) promote a reduction of energy usage in line with the 'energy hierarchy'; and ii) develop policies and proposals to secure a reduction in the need for energy through the location of development, site layout and building design.' The Regional Plan includes revised indicative targets as outlined in the table below

Renewable Energy Targets (Policy 39) Note that all targets are indicative

Renewable energy Technology	Current Capacity (2006) GWh/y	Current Capacity (2006) MWe	Target for 2010 GWh/y	Target for 2010 MWe	Target for 2020 GWh/y	Target for 2020 MWe	Indicative Target for 2026 GWh/y	Indicative Target for 2026 MWe
On shore Wind	142	54 ⁽¹⁾	319	122	460	175	460	175
Biomass Wet agricultural waste	0	0	42	5	42	5	77	10
Biomass Poultry Litter	0	0	118	15	210	27	210	27
Biomass Energy Crop	38	5	344	46	1,012	136	1,114	150
Hydro	14	3	39	9	62	14	73	16
Micro-generation Wind	0 (negligible)	0 (negligible)	9	10 ⁽²⁾	1,832	2,091	1,832	2,091
Micro-generation PV	0 (negligible)	0	52	59 ⁽³⁾	1,018	1,162	1,018	1,162
Landfill Gas ⁽⁴⁾	438	53	438	53	438	53	358	43
Anaerobic Digestion	11	1	39	5	64	8	72	9
Total ⁽⁵⁾ (%)	3%		6 %		20%		20%	

1. Includes 2 wind farms in construction in 2006 (now in operation).

2. Micro wind corresponds to 2000 installations of 5kw turbines

3. PV corresponds to approximately 2kw PV on half of the new properties to 2010

4. Landfill gas is not a natural renewable resource but it is eligible for renewable obligations certificates. Note that landfill gas contribution will begin to tail off after 2020 due to reduced organic waste going to landfill.

5. In addition to the Regional onshore targets offshore generation targets are 1,315GWh/y for 2010; 3,000GWh/y for 2020; and 3,483GWh/y by 2026. Percentages are electricity generation as a % of regional electricity consumption.

Renewable targets based on modified scenario 4d of BFF report, with reduced 2010 targets to be more realistic.

In setting regional priorities for natural and cultural resources, the Regional Plan recognises that provision of enhanced GI is a key challenge facing the Region, stating 'The area of statutory sites important for biodiversity in the Region is well below the national level. Overall there has been a significant decline in biodiversity and to compensate for past losses, regional habitat restoration and creation targets through the delivery of 'green infrastructure' needs to be proportionally greater than in other regions. The particularly low regional proportion of woodland cover offers a specific opportunity for habitat creation.' In response to this, a specific policy promoting the GI approach is included in the Regional Plan:

'POLICY 28 - REGIONAL PRIORITIES FOR ENVIRONMENTAL & GREEN INFRASTRUCTURE

Local Authorities, statutory environmental bodies and developers should work with the voluntary sector, landowners and local communities to ensure the delivery, protection and enhancement of Environmental Infrastructure across the Region. Such infrastructure should contribute to a high quality natural and built environment and to the delivery of sustainable communities.

Local Authorities and those responsible for the planning and delivery of growth and environmental management across the Region should work together to:

- *Assess the capacity of existing Environmental Infrastructure to accommodate change in order to inform decisions on the scale, location and phasing of new development.*

¹⁰⁷ The weight to be adhered to these figures will need to be considered as details of the new Government planning proposals emerge and progress

Account should be taken of current deficits and likely future demands, including those likely to result from climate change, to identify any further needs or constraints;

- *Select appropriate indicators and targets to monitor the condition of Environmental Infrastructure and to ensure that its capacity to accommodate change is not breached;*
- *Ensure that the provision and design of new Environmental Infrastructure is considered and its delivery planned through environmental capacity analysis at the same time as other infrastructure requirements;*
- *Within Local Development Frameworks develop 'green infrastructure plans' based on character assessments of existing natural, cultural and landscape assets and the identification of new assets required to meet the needs of existing and expanding communities;*
- *Increase access to green space that can be used for formal and informal recreation, educational purposes and to promote healthy lifestyles, without increasing pressures on sensitive sites, especially those designated under the European Habitats Directive; and*
- *Identify delivery and funding mechanisms for the creation and future management of Green Infrastructure, including from the planning system and other funding sources such as EU funded Environmental Stewardship Schemes.'*

In addition to above policy, the East Midlands Regional Plan contains the following natural and cultural resources policies that are also relevant to the delivery, protection and enhancement of multifunctional GI assets that can provide a range of social, economic and environmental benefits for underpinning sustainable development in Central Lincolnshire:

- Policy 26 - Protecting and Enhancing the Region's Natural and Cultural Heritage (Principles)
- Policy 27 - Regional Priorities for the Historic Environment
- Policy 29 - Priorities for Enhancing the Region's Biodiversity
- Policy 30 - Regional Priorities for Managing and Increasing Woodland Cover
- Policy 31 - Priorities for the Management and Enhancement of the Region's Landscape
- Policy 32 - A Regional Approach to Water Resources and Water Quality
- Policy 33 - Regional Priorities for Strategic River Corridors
- Policy 34 - Priorities for the Management of the Lincolnshire Coast
- Policy 35 - A Regional Approach to Managing Flood Risk
- Policy 36 - Regional Priorities for Air Quality
- Policy 37 - Regional Priorities for Minerals
- Policy 38 - Regional Priorities for Waste Management
- Policy 39 - Regional Priorities for Energy Reduction and Efficiency
- Policy 40 - Regional Priorities for Low Carbon Energy Generation
- Policy 41 - Regional Priorities for Culture, Sport and Recreation
- Policy 42 - Regional Priorities for Tourism
- Policy Lincoln Policy Area SRS 3 Protection of Lincoln's Urban Fringe
- Policy Lincoln Policy Area SRS 6 Tourism Culture and Education
- Policy Lincoln Policy Area SRS 8 Flood Risk and Water Management
- Policy Lincoln Policy Area SRS 9 Sub-Regional Country Park
- Policy Lincoln Policy Area SRS 10 Lincoln Cathedral
- Policy Lincoln Policy Area SRS 11 Sub-Regional Transport Priorities

Many of the above policies make specific reference to the GI approach. For example: Policy 27 (Regional Priorities for the Historic Environment) requires Local Planning Authorities to *'recognise the opportunities for enhancing existing tourism attractions and for developing the potential of other areas and sites of historic interest as part of Green Infrastructure, having regard to potential impacts on biodiversity.'*; Policy 30 (Regional Priorities for Managing and Increasing Woodland Cover) states that *'Opportunities should be taken to secure sustainable management of all woodland, and to increase public access to high quality multifunctional woodland close to communities as part of the development of Green Infrastructure.'*; and Policy 33 (Regional Priorities for Strategic River Corridors) sets out that *'Local Authorities and other relevant public bodies should work together across regional boundaries to protect and enhance the multifunctional importance of strategic river corridors as part of the Region's Green Infrastructure, including for wildlife, landscape and townscape, regeneration and economic*

diversification, education, recreation, the historic environment including archaeology, and managing flood risk.'

The Sub-Regional Strategy for the Lincoln Policy Area¹⁰⁸ set out in Section 4.4 of the East Midlands Regional Plan¹⁰⁹ provide additional direction and guidance to Local Development Frameworks on strategic issues that relate to the City of Lincoln and its surrounding hinterland. In particular it aims to set out a sustainable strategic context for the strengthening of Lincoln's role as a Principal Urban Area. The vision of the Sub-Regional Strategy for the Lincoln Policy Area, provided in the Regional Plan, states that:

'The regional role of the Lincoln Policy Area will be significantly strengthened through:

- the development of a sustainable pattern of development and movement in the City of Lincoln and in surrounding settlements;*
- the development of Lincoln's role as a cultural and commercial centre;*
- an improvement to the economic performance of the City;*
- a reduction in deprivation; and*
- the protection and enhancement of the outstanding historic and architectural character of Lincoln and its setting in the landscape.'*

The Sub-Regional Strategy goes on to list twelve objectives for the implementation of development within this vision, which includes: *'protect and/or enhance the character and quality of the built and natural environment, including greenspace, and the wider surrounding countryside'*. The Sub-regional Strategy for the Lincoln Policy Area and the key regional policy thrust for the Central Lincolnshire HMA can be summarised as follows¹¹⁰:

- Strengthening the role of Lincoln as a Principal Urban Area through urban intensification and regeneration and planned sustainable urban extensions.
- Maintain and enhance the role of the main towns of Sleaford and Gainsborough and the small towns of Caistor and Market Rasen through the protection of existing facilities, regeneration and sustainably located new housing and economic development.
- Meeting affordable housing needs in a way that promotes a sustainable pattern of development.

These principles are the basis for starting to develop a Spatial Plan for Central Lincolnshire, with the overarching policy document being the Core Strategy.

The **Regional Economic Strategy**¹¹¹ is the economic strategy element of the IRS. Prepared by the East Midlands Development Agency (emda), the Regional Economic Strategy (RES) highlights the potential that GI has to deliver economic benefits, and the benefits to be gained by integrating economic, social and environmental policy through the RES and IRS. The RES recognises that the enhancement of the region's GI assets will have a key role to play in achieving the vision and strategic priorities set out in the RES. GI can attract inward investment, stimulate economic growth, raise property and land values, and increase tourism. The RES is based on three themes:

- Raising productivity;
- Ensuring sustainability, and
- Achieving equality

In relation to the 'ensuring sustainability' theme, the following five strategic priorities of relevance to GI planning and provision are identified:

- Enabling better connectivity and accessibility;

¹⁰⁸ The Lincoln Policy Area comprises the whole of the City of Lincoln, and the wards of Bassingham, Branston and Mere, Cliff Villages (part), Eagle & North Scarle, Metheringham, Skellingthorpe, Washingborough & Heghington in North Kesteven and Bardney, Dunholme, Fiskerton, Nettleham, Saxilby, Scampton, Sudbrook Welton in West Lindsey.

¹⁰⁹ East Midlands Regional Plan - RSS8 (2009, East Midlands Regional Assembly)

¹¹⁰ Invitation to Tender for the Provision of a Green Infrastructure Study for Central Lincolnshire (January 2011, Procurement Lincolnshire)

¹¹¹ 'A flourishing region' - Regional Economic Development Strategy for the East Midlands 2006-2020 (2006, East Midlands Development Agency)

- Reducing the impact on climate change;
- Ensuring a high quality environment;
- Protecting and enhancing the environment; and
- Achieving a good balance between competing land uses.

A GI Guide and Toolkit has been recently developed by emda to support GI projects¹¹². The Toolkit explains the rationale for investment in GI and offers a consistent evaluation and assessment framework to help with decision making in relation to the development, delivery, monitoring and evaluation of GI projects. The approach set out in the Toolkit is relevant to a range of existing funding streams, and is also likely to remain relevant as and when new funding streams and investment programmes come on board.

The **Regional Environment Strategy**¹¹³ (REnvS) is the environmental strategy element of the IRS. It aims to integrate consideration of the environment into all regional decision making, in order to enhance and reduce the impact of activities on the environment. The REnvS is structured around five key components:

- Managing and conserving the wealth of historical, archaeological, geological, geomorphological, biodiversity and landscape assets of the distinctive sub regions and local areas, fostering a sense of place and making people more aware of their environment, with appropriate access provision and getting people to use less environmentally damaging travel methods;
- Enhancing geodiversity, biodiversity and the character and quality of the region's variety of landscape types and characteristics in line with regional priorities;
- Minimising greenhouse gas emissions and protecting the environment while adapting to the challenges and taking up the opportunities that climate change will bring us, reducing our contribution to air pollutant emissions and encouraging the reduced environmental impact of energy use;
- Ensuring the prudent use of resources, such as minerals and aggregates, woodland and forestry, soils and land, minimising waste and reducing adverse impacts on the environment; and
- Continuing improvements in the quality and efficient use of increasingly scarce water resources, while increasing the use of sustainable drainage and respecting natural processes wherever possible in floodplains and along the coast.

Many of these components can be realised through careful integration of land-use planning and the development and implementation of GI.

The **Regional Cultural Strategy**¹¹⁴ (RCS) is the cultural strategy element of the IRS. The RCS seeks to improve the quality of life in the region by offering guidance for cultural development in the East Midlands, based on the premise that 'people's understanding of a place is shaped by its unique cultural character'. The strategy focuses on four themes, namely:

- Supporting cultural opportunities for people and communities;
- Fulfilling the potential of culture in regional opportunities, and in national policies and programmes;
- Getting culture valued in regional policy and planning; and
- Achieving sector sustainability.

GI has the potential to promote cultural development by providing people with access to the natural environment and their historic environment, and creating opportunities for education and learning.

The **Regional Biodiversity Strategy**¹¹⁵ (RBS) is also a key element of the IRS. The RBS has been developed by the East Midlands Biodiversity Partnership and is endorsed by East Midlands Regional

¹¹² <http://www.emda.org.uk/environment/default.asp>

¹¹³ A Regional Environmental Strategy for the East Midlands (2002, East Midlands Regional Assembly)

¹¹⁴ 'A Place of Choice' – A Cultural Strategy for the East Midlands 2006-2011 (2006, East Midlands Cultural consortium)

¹¹⁵ Putting Wildlife Back on the Map – The East Midlands Biodiversity Strategy (2006, Regional Biodiversity Partnership)

Assembly (EMRA)¹¹⁶. It provides a strategic framework for the conservation and enhancement of biodiversity in the region through the delivery of action plans, and forms a key component of the Regional Environment Strategy. The development of Central Lincolnshire's GI will support the RBS by contributing towards achieving a step-change in the level of biodiversity throughout Central Lincolnshire.

The **Regional Forestry Framework**¹¹⁷ (RFF) was prepared by a partnership of regional bodies supported by the Forestry Commission. It establishes clear policy links between the regional objectives for forestry in the region and the role it can play in delivering IRS policy objectives, such as economic development, public health, spatial development/regeneration, nature conservation, tourism and culture. The RFF's guiding principles have been endorsed by the EMRA¹¹⁸. The GI Strategy could contribute substantially to the implementation of this Framework through encouraging increased woodland and tree cover within Central Lincolnshire.

The East Midlands Regional Landscape Character Assessment (2010)¹¹⁹ (EMRLCA) aims to increase understanding of the region's varied landscapes by identifying distinctive, rare or special characteristics. The EMRLCA presents objective, non-technical descriptions of each of the 31 regional landscape character types. It also considers the implications of forces for change in the landscape and provides guidance to counter adverse impacts and promote positive change. The innovative approach to this study has pioneered new methods of assessment and has been undertaken in line with the most up-to-date guidance and methodologies. The report and accompanying illustrations provide an accessible overview of the region's diverse landscape, as well as informing strategic initiatives and decision making which may have an impact on the character and identity of the landscape. The assessment is anticipated to act as a stimulus for a range of positive initiatives and to raise awareness of environmental issues, helping decision-makers and stakeholders to demand higher standards of design and development across the region in the future. Together with the District level Landscape Character Assessments (see Local Context), the EMRLCA will provide decision-makers in Central Lincolnshire with information and guidance to inform the design of GI networks.

AECOM were commissioned by Climate East Midlands in association with Defra to undertake a scoping study considering the use of 'natural interventions' as a climate change adaptation measure. The objectives of the study, **Adapting through Natural Interventions (2010)**¹²⁰, were to review the existing body of knowledge and research concerning the use of natural systems and features as adaptation measures, and examine how natural adaptation interventions can be selected and designed to bring the greatest social, economic and environmental benefits. The scoping study considers the current breadth and depth of knowledge and seeks to highlight knowledge gaps and any need for further tools and resources that will support decision-making and consequent delivery of natural interventions. The study considered the East Midlands Region in particular, highlighting specific needs and opportunities in the Region, and any potential to integrate with existing tools and projects. It states that *'it is evident that there are very clear drivers for climate change adaptation, and support of the use of natural systems green infrastructure in an adaptation role. The emphasis on these issues is likely to increase over time, and there is a recognised need for regional and local planning to act quickly to understand local circumstances and priorities.'*

The **Green Infrastructure Guide for the East Midlands**¹²¹ sets the context for the assessment, planning and provision of GI in the region. It provides a series of case studies to demonstrate how the many different types of GI resource can be managed to maximise the benefits they offer for environmental conservation and enhancement, with particular focus on the East Midlands. The Guide includes a checklist of principles for GI planning and delivery, and provides signposts to further resources and information to assist in the development of GI Strategies and initiatives. It was published in 2008, and the Guide is informing the development of the Central Lincolnshire GI Strategy.

¹¹⁶ The East Midlands Regional Assembly was replaced by the East Midlands Councils in April 2010.

¹¹⁷ Space4trees – The Regional Forestry Framework for the East Midlands(2005, Forestry Commission)

¹¹⁸ The East Midlands Regional Assembly was replaced by the East Midlands Councils in April 2010.

¹¹⁹ East Midlands Regional Landscape Character Assessment (April 2010, LDA Design for East Midlands Landscape Partnership)

¹²⁰ Adapting through Natural Interventions (2010, AECOM for Climate East Midlands)

¹²¹ Green Infrastructure Guide for the East Midlands (2008, East Midlands Green Infrastructure Network)

The River Nene Regional Park has been leading work in the strategic planning of GI in the East Midlands and has published guidance to assist in the delivery of strategic GI planning in the region and for application nationally. **Creating Successful Green Infrastructure Plans – Best Practice from the East Midlands and the River Nene Regional Park**¹²² provides guidance to help all those involved in the planning or development of GI to understand its benefits. It is endorsed by Natural England, CABESpace and EMRA¹²³.

The **East Midlands Green Infrastructure Scoping Study**¹²⁴ investigated the underlying causes of under-investment in GI in the East Midlands, outside Northamptonshire. The study identified a number of drivers for change, recommending actions for organisations in the region to collectively overcome impediments to the delivery of GI. The document recommended the development of a Green Infrastructure Strategy for the region and the establishment of a Green Infrastructure Network forum for the region.

The **East Midlands Public Benefit Mapping Project**¹²⁵ established a methodology for the prioritisation of GI investment in the region. It considers where GI delivery could bring about the greatest economic, social and environmental benefit and provides strong evidence to support the prioritisation of areas for GI investment. The study concluded that the growth predicted for Central Lincolnshire would put sustained pressure on the existing green infrastructure in the area, which already has high population densities and significant demand for open space. It found that these areas were already short in biodiversity and greenspace, and considerable investment in GI would be needed to reduce the impact of growth on the environment and to ensure that growth is sustainable. The study provides an important source of evidence for guiding future investment in GI provision.

County Policy Context

The **Draft Lincolnshire Sustainable Community Strategy**¹²⁶ (SCS) sets out a broad vision for Lincolnshire's future. The county council is responsible, under the Local Government Act 2000, for ensuring that it is developed in partnership with the Lincolnshire Assembly. The SCS is being revised through the 'Big County, Big Skies, Big Future' campaign based on wide-ranging public consultation to ensure that all communities in Lincolnshire have an opportunity to have their say about the kind of place they would like Lincolnshire to be in the future. Currently the vision for Lincolnshire in 2030 is:

'A Big County, with Big Skies that has a Big Future because Lincolnshire is the place where everyone can find and enjoy the lifestyle that suits them best. Those great lifestyles come from:

- *Vibrant communities where people enjoy life*
- *Opportunities for good health*
- *One of the healthiest and most sustainable economies in Europe*
- *Good connections between people, services, communities and places*
- *Rich diverse environments, heritage and cultures that residents and visitors enjoy.'*

The **Lincolnshire Biodiversity Action Plan**¹²⁷ (LBAP) provides guidance and priorities for action to conserve significant species and habitats. It is linked to the UK Biodiversity Action Plan and the priority habitats and species identified within it for conservation and enhancement. It should be noted that the publication of *Local Sites: Guidance on their Identification, Selection and Management* by Defra recognises the importance of non-statutory sites in delivering UK BAP targets. These local sites should be defined by clear criteria and included in relevant planning documents. *Local Wildlife Sites – Guidelines for their Identification and Selection in the Historic County of Lincolnshire* (Lincolnshire, North Lincolnshire and North East Lincolnshire) was published in 2006 by the Lincolnshire BAP Partnership and will enable the identification of Local Wildlife Sites throughout the county.

¹²² Creating Successful Green Infrastructure Plans, Best Practice from the East Midlands and the River Nene Regional Park (RNRP, September 2007).

¹²³ EMRA was replaced by the East Midlands Councils in April 2010.

¹²⁴ East Midlands Green Infrastructure Scoping Study (2006, East Midlands Regional Assembly)

¹²⁵ Green Infrastructure for the East Midlands – A Public Benefit Mapping Project (2006, East Midlands Regional Assembly)

¹²⁶ Draft Lincolnshire Sustainable Community Strategy 2009-30 (Lincolnshire Assembly and Lincolnshire County Council)

¹²⁷ Lincolnshire Biodiversity Action Plan: action for wildlife in Lincolnshire. 2nd edition (2006, Lincolnshire Wildlife Trust)

LBAPs also take account of additional locally significant habitat and species and set out actions for their conservation and enhancement. LBAPs are one of the key points of reference for local planning authorities when considering the potential impacts of new development on biodiversity in the context of PPS9.

The **Lincolnshire Local Geodiversity Action Plan (2010)**¹²⁸ (LGAP) aims to enhance understanding and action to conserve and develop the geodiversity of Lincolnshire, whilst promoting and managing its sustainable use. It is key to considering the potential impacts of new development on geodiversity in the context of PPS9.

The Countryside and Rights of Way (CROW) Act 2000 requires every County highway authority to publish a Rights of Way Improvement Plan (ROWIP). The Act specifically requires a ROWIP to assess:

- The extent to which local rights of way meet the present and likely future needs of the public;
- The opportunities provided by rights of way for exercise and other forms of open-air recreation and the enjoyment of the area; and
- The accessibility of rights of way to the blind or partially sighted and those with mobility problems.

The **Lincolnshire Countryside Access and Right of Way Improvement Plan**¹²⁹ provides detailed assessments of the Rights of Way network and includes a Statement of Action which identifies tasks that will be undertaken to address the issues raised through the consultation process and developed through four themed chapters. The actions are drawn from conclusions reached from the assessments in broad generic terms and so the plan does not contain site or path-specific assessments or actions. More detail will be set out in our annual work programmes.

The **Lincolnshire Local Transport Plan**¹³⁰ contributes towards the development of sustainable transport initiatives. The Vision for Transport in Lincolnshire in 2030 states that:

- *'There is a well-managed and safe road network to maximise the reliability of journeys and reduce the impact of traffic on communities;*
- *There is good inter and intraregional access to support a growing economy*
- *Our streets in built-up areas are seen primarily as places where people can carry on their activities in a pleasant environment*
- *Our sensitive rural areas are managed in ways that retain, and where possible enhance, the value of the natural environment.*
- *There is a good access by a choice of modes to services, jobs and for leisure within Lincolnshire.'*

The Lincolnshire **County Sports Facilities Framework (2008)**¹³¹, updates the 2005 County Sports Facilities Assessment and incorporates a review of the 2002 County Playing Pitch Strategy. It includes a review of local needs and local provision and a review of standards of provision. It also sets out revised standards of provision and current and future deficiencies based on applying these. It also includes an implementation plan

Other relevant County-level strategies include:

- Lincolnshire Play Strategy¹³²;
- Lincolnshire Sustainable Community Strategy 2009-30¹³³;
- Lincolnshire Waterways for the Future¹³⁴;
- Lincolnshire Wolds AONB Management Plan¹³⁵

¹²⁸ Local Geodiversity Action Plan for the Historic County of Lincolnshire (Lincolnshire, North Lincolnshire & North East Lincolnshire) (2010, Geodiversity Group of the Lincolnshire Biodiversity Partnership)

¹²⁹ Countryside Access and Right of Way Improvement Plan 2007-12 (2007, Lincolnshire County Council)

¹³⁰ 2nd Local Transport Plan 2006/7 to 2010/11: Walking and Cycling Strategy (2006, Lincolnshire County Council)

¹³¹ County Sports Facilities Framework (2008, Lincolnshire Sports Partnership)

¹³² All to Play for in West Lindsey 2007-12 (West Lindsey Play Partnership, Final Draft)

¹³³ Lincolnshire Sustainable Community Strategy 2009-30¹³³ (Lincolnshire Assembly)

¹³⁴ Lincolnshire Waterways for the Future: a Development Framework for the Lincolnshire Waterways 2009-18 (2008, Lincolnshire Waterways Partnership)

¹³⁵ Lincolnshire Wolds AONB Management Plan 2004-09 (Lincolnshire Wolds Countryside Service)

Central Lincolnshire Policy Context

The City of Lincoln, North Kesteven District and West Lindsey District; in partnership with Lincolnshire County Council, have joined together to prepare a joint **Local Development Framework** (LDF) for the area collectively known as Central Lincolnshire. In time, the Joint LDF will set out an overall approach to growth and development over the next 15 to 20 years and will be used as the basis for assessing planning applications for new developments.

The Central Lincolnshire **Core Strategy** Issues and Options Consultation Document was published for consultation between in October and December 2010. The response to the consultation will be carried forward into the Draft Core Strategy which will be subject to a further stage of consultation later in 2011. The Core Strategy Issues and Options document makes the following references to GI:

- Draft Vision for Central Lincolnshire: [...] *Central Lincolnshire's local distinctiveness, built heritage and natural assets have been protected and enhanced by careful planning and management, and are a key attraction for both residents and visitors. The area now has an extensive network of 'green infrastructure', including the new Witham Country Park near Lincoln, contributing to nature conservation, leisure and climate change mitigation [...].*
- Draft Objective 10: *To improve and provide new Green Infrastructure by enhancing, developing and providing a network of multi-functional green spaces, parks, rivers and other corridors within and around settlements that connect them to each other and the wider countryside, improving access, environmental quality and biodiversity.*
- Theme 5 A Quality environment: *describes the concept a multi-purpose network of open space and approach to providing GI by establishing green corridors.*

Lincolnshire County Council is leading on the preparation of an **Infrastructure Delivery Plan** (IDP) for Central Lincolnshire, which will be developed alongside the Core Strategy. The key output of this process will be a schedule of infrastructure which is deemed necessary to accommodate and facilitate the level of development proposed. The IDP will be used to assist in the phasing and distribution of development.

Local Policy Context

West Lindsey District

The purpose of the **West Lindsey Sustainable Community Strategy**¹³⁶ is to identify the top level priorities on which partners should focus, in order to improve further the environmental, economic and social well-being for the people of West Lindsey. The West Lindsey Local Strategic Partnership guided the development of West Lindsey's Community Strategy. The Local Strategic Partnership seeks to celebrate, and build on, the successes evident in West Lindsey, in a way that addresses the specific needs of the locality, as well as linking with the broader County-wide issues and Local Area Agreement objectives. The purpose of the Strategy is to improve the quality of life of everyone in the District, for now and for future generations.

Specific planning policies in the adopted **West Lindsey Local Plan** (2006) have been saved. Until any replacement provisions for these older policies are put in place through the Central Lincolnshire Local Development Framework (LDF), West Lindsey will operate their development management assisted by these suites of Saved Local Plan Policies. The Central Lincolnshire LDF is a portfolio of local policy documents, to be led by the overarching Core Strategy Development Plan Document.

A **Play Strategy** has been prepared by West Lindsey District Council (2007)¹³⁷. It is intended to be a working document that will change and develop alongside the growing and changing communities it

¹³⁶ The West Lindsey Sustainable Community Strategy 2006-16 (West Lindsey Local Strategic Partnership)

¹³⁷ All to Play for in West Lindsey 2007-12 (West Lindsey paly Partnership, Final Draft)

relate to. It provides a strategic framework in which to plan and prioritise the needs of play throughout the District. Other relevant documents and strategies include:

- West Lindsey Strategic Flood Risk Assessment¹³⁸;
- Gainsborough Water Cycle Study Detailed Strategy¹³⁹
- Grimsby and Ancholme Catchment Flood Management Plan¹⁴⁰
- West Lindsey Conservation Area Reviews¹⁴¹
- West Lindsey District Council SPGs
- Gainsborough Transport Plan¹⁴²
- Gainsborough Area Action Plan: Issues and Options¹⁴³
- Gainsborough Growth Point: Programme of Development 2008-26¹⁴⁴

City of Lincoln

The **City of Lincoln's Sustainable Community Strategy**¹⁴⁵ (SCS) sets out a vision for Lincoln in 2020. It describes the key issues, opportunities and priorities that need to be addressed in order to achieve the vision. The Lincoln Local Strategic Partnership, which is made up of representatives of the public, private, community and voluntary sectors, set out to agree a shared vision for the city and work together to deliver that vision through the development and delivery of the SCS. The vision is firmly based on local needs, underpinned by a shared evidence base informed by community aspirations.

Specific planning policies in the adopted **City of Lincoln Local Plan** (1998) have been saved. Until any replacement provisions for these older policies are put in place through the Central Lincolnshire Local Development Framework (LDF), the City of Lincoln will operate their development management assisted by these suites of Saved Local Plan Policies. The Central Lincolnshire LDF is a portfolio of local policy documents, to be led by the overarching Core Strategy Development Plan Document.

A **Play Strategy** has been prepared by the City of Lincoln Council (2007)¹⁴⁶. It is intended to be a working document that will change and develop alongside the growing and changing communities it relate to. It provides a strategic framework in which to plan and prioritise the needs of play throughout the District.

The **Lincoln Biodiversity Audit (Draft, 2008)**¹⁴⁷ sets out guidance for the protection and enhancement of the rich natural heritage and biodiversity of Lincoln. It includes actions and targets of two different types: i) commitments made by Lincoln that will contribute to specific targets within the Lincolnshire BAP; and ii) a list of specific sites that should be a priority in Lincoln for management and investment.

Leisure in Lincoln (2009)¹⁴⁸ considers all the main formal leisure activities in the city and assesses the provision needed to sustain and enhance them, both now and in the future. For the purposes of the strategy, 'leisure' is defined as the full range of sport and physical activity in which people choose to participate on a competitive or recreational basis during their leisure time.

The **Lincoln Greenways Strategy (2001)**¹⁴⁹ aimed to develop a network of greenways and quiet roads within approximately 13km of the city. The Strategy was partially implemented. Other relevant documents and strategies include:

¹³⁸ West Lindsey Strategic Flood Risk Assessment (July 2009, West Lindsey District Council)

¹³⁹ Gainsborough Water Cycle Study Detailed Strategy (2010, AECOM for West Lindsey District Council)

¹⁴⁰ Grimsby and Ancholme Catchment Flood Management Plan (2009, Environment Agency)

¹⁴¹ See West Lindsey District Council website

¹⁴² Gainsborough Transport Plan (2010, Jacobs for West Lindsey District Council)

¹⁴³ Gainsborough Area Action Plan: Issues and Options (2007, West Lindsey District Council)

¹⁴⁴ Gainsborough Growth Point: Programme of Development 2008-26 (2008, West Lindsey District Council)

¹⁴⁵ Lincoln's Sustainable Community Strategy 2008-23 Vision – Our City Our Future (City of Lincoln Council and Lincoln Local Strategic Partnership)

¹⁴⁶ A Play Strategy for the City of Lincoln 2007-12 (City of Lincoln Council)

¹⁴⁷ Lincoln Biodiversity Audit (Draft 2008, City of Lincoln Council)

¹⁴⁸ Leisure in Lincoln (2009, City of Lincoln Council)

¹⁴⁹ Lincoln Greenways Strategy: Greater Lincoln Greenways and Quiet Roads National Demonstration Project (Lincoln City Council, 2001)

- Lincoln Policy Area Strategic Flood Risk Assessment¹⁵⁰ (2010, JBA Consulting)
- City of Lincoln Conservation Area Reviews¹⁵¹
- City of Lincoln SPGs

North Kesteven

The **North Kesteven Sustainable Community Strategy**¹⁵² represents the Local Strategic Partnership's vision for the next ten years; the challenges it faces; and the priorities for action that the Partnership have identified. The Strategy highlights the fact that going forward, the challenges faced by the District are 'partnership challenges', requiring integrated approaches to delivery. The Local Strategic Partnership is made up of a variety of individuals, businesses and agencies from the public, private, community and voluntary sectors all working together with a shared aim: to make North Kesteven an even better place to live, work and visit. The Sustainable Community Strategy is an essential part of the District's development process as it provides a framework for action in North Kesteven and represents a long term vision of how to ensure that the District continues to develop and improve, ensuring a better quality of life for everyone. The Sustainable Community Strategy gives communities the opportunity to express their views, needs and local priorities and helps all organisations in the District to align their work.

Specific planning policies in the adopted North Kesteven **Local Plan** (2007) have been saved. Until any replacement provisions for these older policies are put in place through the Central Lincolnshire Local Development Framework (LDF), North Kesteven will operate their development management assisted by these suites of Saved Local Plan Policies. The Central Lincolnshire LDF is a portfolio of local policy documents, to be led by the overarching Core Strategy Development Plan Document.

A **Play Strategy** has been prepared by North Kesteven District Council (2007)¹⁵³. It is intended to be a working document that will change and develop alongside the growing and changing communities it relate to. It provides a strategic framework in which to plan and prioritise the needs of play throughout the District. Other relevant documents and strategies include:

- North Kesteven Strategic Flood Risk Assessment¹⁵⁴
- North Kesteven Conservation Area Reviews¹⁵⁵
- North Kesteven District Council SPGs

Other

Other relevant plans and strategies include the following Environment Agency documents:

- **Anglian River Basin Management Plan**¹⁵⁶ describes the river basin district and the pressures that the water environment faces. It shows what this means for the current state of the water environment, and what actions will be taken to address the pressures. It sets out what improvements are possible by 2015 and how the actions will make a difference to the local environment – the catchments, the estuaries and coasts, and the groundwater. It has been prepared under the Water Framework Directive, and is the first of a series of six-year planning cycles (the first cycle will end in 2015).
- **River Trent Catchment Flood Management Plan**¹⁵⁷ (CFMP) gives an overview of the flood risk in the River Trent catchment and sets out the Environment Agency's preferred plan for sustainable flood risk management over the next 50 to 100 years. It considers all types of inland flooding, from rivers, ground water, surface water and tidal flooding, but not flooding directly from the sea (coastal flooding). Coverage of surface and ground water is however limited due to a lack of available

¹⁵⁰ Lincoln Policy Area Strategic Flood Risk Assessment (2010, JBA Consulting)

¹⁵¹ See City of Lincoln Council website

¹⁵² North Kesteven Sustainable Community Strategy 2008-18: 100 Flourishing Communities (North Kesteven Local Strategic Partnership)

¹⁵³ North Kesteven Play Strategy 2007-12 (North Kesteven District Council)

¹⁵⁴ North Kesteven Strategic Flood Risk Assessment (2008 Revision, North Kesteven District Council)

¹⁵⁵ See North Kesteven District Council website

¹⁵⁶ Water for Life and Livelihoods: River Basin Management Plan Anglian River Basin District (2009, Environment Agency)

¹⁵⁷ River Trent Catchment Flood Management Plan, Summary Report (2010, Environment Agency)

information. The role of CFMPs is to establish flood risk management policies which will deliver sustainable flood risk management for the long term. This CFMP identifies flood risk management policies to assist all key decision makers in the catchment.

- **The Trent Corridor Catchment Abstraction Management Strategy (CAMS)¹⁵⁸** sets out the abstraction licensing strategy for the River Trent. CAMS are strategies for management of water resources at a local level. They make more information on water resources and licensing practice publicly available and allow the balance between the needs of abstractors, other water users and the aquatic environment to be considered in consultation with the local community and interested parties. CAMS are also the mechanism for managing time limited licences by determining whether they should be renewed and, if so, on what terms.
- **River Witham Catchment Flood Management Plan¹⁵⁹** (CFMP) gives an overview of the flood risk in the River Witham catchment and sets out the Environment Agency's preferred plan for sustainable flood risk management over the next 50 to 100 years. It considers all types of inland flooding, from rivers, ground water, surface water and tidal flooding, but not flooding directly from the sea (coastal flooding). Coverage of surface and ground water is however limited due to a lack of available information. The role of CFMPs is to establish flood risk management policies which will deliver sustainable flood risk management for the long term. This CFMP identifies flood risk management policies to assist all key decision makers in the catchment.
- **River Witham Catchment Abstraction Management Strategy¹⁶⁰** (CAM) sets out the abstraction licensing strategy for the River Witham. CAMS are strategies for management of water resources at a local level. They make more information on water resources and licensing practice publicly available and allow the balance between the needs of abstractors, other water users and the aquatic environment to be considered in consultation with the local community and interested parties. CAMS are also the mechanism for managing time limited licences by determining whether they should be renewed and, if so, on what terms.

¹⁵⁸ The Trent Corridor Catchment Abstraction Management Strategy (2003, Environment Agency)

¹⁵⁹ River Witham Catchment Flood Management Plan (2009, Environment Agency)

¹⁶⁰ River Witham Catchment Abstraction Management Strategy (2004, Environment Agency)

APPENDIX A4 ADDITIONAL GREEN INFRASTRUCTURE FUNDING SOURCES

The additional and complimentary GI funding sources provided in this Appendix were provided by Natural England. They represent the Annex 'Funding Mechanism for Green Infrastructure' to the draft Newcastle-Gateshead Green Infrastructure Strategy provided by Newcastle City Council in May 2011.

Funding Mechanism for Green Infrastructure

This document represents the annex to the draft Newcastle-Gateshead Green Infrastructure strategy and was provided by Newcastle City Council in May 2011

Copyright and Non-Disclosure Notice

The contents and layout of this report are subject to copyright owned by Entec

(© Entec UK Limited 2010) save to the extent that copyright has been legally assigned by us to another party or is used by Entec under licence. To the extent that we own the copyright in this report, it may not be copied or used without our prior written agreement for any purpose other than the purpose indicated in this report.

The methodology (if any) contained in this report is provided to you in confidence and must not be disclosed or copied to third parties without the prior written agreement of Entec. Disclosure of that information may constitute an actionable breach of confidence or may otherwise prejudice our commercial interests. Any third party who obtains access to this report by any means will, in any event, be subject to the Third Party Disclaimer set out below.





Third-Party Disclaimer

Any disclosure of this report to a third-party is subject to this disclaimer. The report was prepared by Entec at the instruction of, and for use by, our client named on the front of the report. It does not in any way constitute advice to any third-party who is able to access it by any means. Entec excludes to the fullest extent lawfully permitted all liability whatsoever for any loss or damage howsoever arising from reliance on the contents of this report. We do not however exclude our liability (if any) for personal injury or death resulting from our negligence, for fraud or any other matter in relation to which we cannot legally exclude liability.







Appendix A Funding Mechanisms







The table below provides information on funding streams available in July 2010, with subsequent deletion of certain schemes which have been abolished. The funding arena is changing considerably in the current political climate and therefore the table will require regular review.

	Source	Details	Funding
EU	INTERREG IVA/B 	<p>European funding is funding made available by the European Union for cooperation between organisations in other European Member states. Its aims include promoting harmonious economic and social development through the sharing of knowledge and experience. INTERREG funding is currently in its fourth stage. The A Strand funds cooperation between land and sea-based border areas in the European Union. The B Strand funds trans-national cooperation between wider groups of European regions.</p> <p>e.g. MP4 Making Places Profitable - Public and Private open spaces, Sheffield City Council (South Yorkshire Forest Partnership)</p>	Variable
	Rural Development Programme 	<p>The Rural Development Programme for England (RDPE) is partly funded through the European Agricultural Fund for Rural Development and through funding provided by Defra. The Programme is jointly delivered by EEDA, The Forestry Commission and Natural England.</p> <p>e.g. Environmental Stewardship Scheme</p>	Variable
	LIFE + (UK) 	<p>The aim of the LIFE + is to fund actions that protect and improve the environment. The European Commission has announced that the third call for proposals under the Life + Programme is now open for applications. The Life + programme is the EU's main fund for supporting environmental projects. Under this call for proposals, the Commission will be supporting projects under the following headings; nature and biodiversity; environment policy and governance; and information and communication. A total of €250 Million is available for this call and the total available to the UK is in excess of €19 million.</p> <p>e.g. The University of Teesside Clean Environment Management Centre</p>	Matched funding. (The maximum co-financing rate can be 75 percent, but is normally 50 percent.)
National Government	Revenue Support Grants 	<p>Revenue support grants are given by central government to local authorities to support their activities. Through Local Area Agreements green infrastructure can be prioritised to meet a range of objectives.</p> <p>e.g. Newcastle City Council and Gateshead Council</p>	Varies between authorities
			Varies between authorities







	Source	Details	Funding
Lottery and External Funds	Lottery Funding 	<p>The lottery funds a number of lottery funds including the following relevant funds:</p> <p>Awards for All Big Lottery Fund Heritage Lottery Fund UK Sport</p> <p>The funds are distributed by various organisations and trusts. Different funds are open for various objectives and for different applicants including:</p> <ul style="list-style-type: none"> Not-for-profit organisations or community groups Profit making organisations/private sector Schools or further education institutions Parish/town councils Local authority/local education authority Other statutory organisations Individuals <p>e.g. Sow and Reap Sensory Garden, Blaydon, Gateshead (Awards for All)</p>	
	Big Lottery Fund 	<p>The Big Lottery fund gives out half the money raised by the National Lottery for good causes. There are two programmes of particular relevance: See below:</p> <ul style="list-style-type: none"> Parks For People Changing Spaces 	
	New Parks for People programme 	<p>Parks for People offers grants for projects involving urban or rural green spaces designed for informal recreation and enjoyment.</p> <p>Parks for People offers grants for projects involving urban or rural green spaces designed for informal recreation and enjoyment.</p> <p>e.g. Ouseburn Park, Newcastle upon Tyne</p>	£250,000-£5million
	Changing Spaces 	<p>Changing spaces incorporates 5 schemes of relevance:</p> <p>See below:</p> <ul style="list-style-type: none"> Community Spaces Access to Nature Community Sustainable Energy Programme Ecominds Local Food <p>e.g. Teams Adventure Playground and Organic Garden, Gateshead</p>	














	Source	Details	Funding
	Community Spaces  	<p>The Community Spaces programme, run by Groundwork UK, opened in 2008. It funds community groups who want to improve local green spaces such as play areas, community gardens, parks, wildlife areas and village greens, kick-about areas and pathway improvements.</p> <p>The following are some examples of projects that Community Spaces will fund:</p> <ul style="list-style-type: none"> community gardens and parks informal sports areas and multi-use games areas nature reserves squares and village greens creation or improvements to churchyard gardens ponds and projects which improve the local community's access to green space. <p>e.g. The Byker Centre Community Garden, Newcastle upon Tyne</p>	<p>Community groups can apply for</p> <p>Small grants of between: £10,000-£25,000</p> <p>Medium grants of between: £25,001-£49,999</p> <p>Large grants of between: £50,000-£100,000</p> <p>Flagship grants of between: £100,001-£450,000</p>
	Local Food , run by RSWT (Royal Society of Wildlife Trusts)  	<p>Local Food, run by RSWT (Royal Society of Wildlife Trusts), opened in 2008. It funds a range of organisations who want to carry out a variety of food related projects to make locally grown food more accessible and affordable to local communities. Grants from £2,000 up to £300,000 are available for not-for-profit groups and organisations in England delivering such projects as growing, processing, marketing and distributing local food; composting and raising awareness of the benefits of such activities.</p> <p>e.g. Food for Thought Project, Ashington, Northumberland</p>	<p>£2,000-£300,000</p>
	Community Sustainable Energy (CSEP) programme  	<p>The Community Sustainable Energy (CSEP) programme, run by BRE (Building Research Establishment) helps community-based organisations in England reduce their environmental impact through the installation of energy saving measures and microgeneration technologies (producing heat or electricity on a small-scale from a low carbon source) CSEP will only award grants to not-for-profit community based organisations in England. Grants are open to not-for-profit community based organisations in England</p> <p>e.g. Othona Community Wind Turbine and Solar Thermal project for community building, East of England</p>	<p>Organisations can apply for up to £50,000 or 50 per cent of the project cost (whichever is lower) for installing microgeneration technologies and energy efficiency measures.</p>



	Source	Details	Funding
	Ecominds 	<p>Ecominds is a grant programme which helps people with experience of mental distress get involved in local environmental projects that improve mental and physical health. Projects include:</p> <ul style="list-style-type: none"> Community agricultural projects linking gardeners and producers with local selling opportunities Wildlife habitat or other site creation or renovation Clearing open spaces for community use Graffiti removal projects Environmental protection (such as rebuilding a flood plain) Creating or renovating urban green areas Installing signposts to encourage community environmental awareness <p>e.g. Walking Group, Mind in Gateshead</p>	<p>Small grants - up to £20,000</p> <p>Medium grants - £20,001-£60,000</p> <p>Large grants- £60,001 to £150,000</p>
	Heritage Lottery Fund 	<p>The Heritage Lottery Fund is the UK's leading funder of diverse heritage – including buildings, museums, natural heritage and the heritage of cultural traditions and language. It help groups and organisations of all sizes with projects that:</p> <ul style="list-style-type: none"> conserve the UK's diverse heritage for present and future generations to experience and enjoy; help more people, and a wider range of people, to take an active part in and make decisions about their heritage; help people to learn about their own and other people's heritage <p>e.g. Walker Park, Newcastle upon Tyne</p>	
	Landscape Partnerships 	<p>The Landscape Partnerships grant programme aims to support schemes of between £250,000 and £2million led by partnerships of local, regional and national interests which aim to conserve areas of distinctive landscape character throughout the United Kingdom. Each scheme is based round a portfolio of smaller projects, which together provide a varied package of benefits to an area, its communities and visitors</p> <p>e.g. Sulworth Connections Landscape Partnership, Dumfries and Galloway</p>	<p>£250,000-£2million</p>
	Your Heritage 	<p>Your Heritage provides grants of between £5,000 and £50,000 to support community-focused heritage projects. To qualify for a grant, projects should conserve and enhance our diverse heritage or encourage communities to identify, look after and celebrate their heritage or both. Projects should also ensure that everyone can learn about, have access to, and enjoy their heritage.</p> <p>e.g. Newcastle City Council Parks</p>	<p>£5,000-£50,000</p>






	Source	Details	Funding
	Heritage Grants  	<p>This programme offers grants of £50,000 or more. Projects should conserve and enhance the nation's diverse heritage or encourage more people to be involved in their heritage or both. Projects should also make sure that everyone can learn about, have access to and enjoy their heritage.</p> <p>e.g. Blaydon, Gateshead Council</p>	£50,000 +
	UK Sport  	<p>Through Sport England National Lottery and Exchequer funding is invested in organisations and projects that will grow and sustain participation in grassroots sport and create opportunities for people to excel at their chosen sport.</p>	See Sport England
National Agencies	    	<p>In England, funding can be accessed from a range of government agencies. Often this money can be used to fund green spaces.</p> <p>This includes agencies such as the Highways and Environment Agencies, Learning and Skills Partnership, Homes and Communities Agency, Natural England, Department of the Environment, Food and Rural Affairs (Defra, Department for the Environment and Climate Change, Environment Agency, Forestry Commission. A number of funds are available often with support from lottery initiatives.</p>	
	Access to Nature Fund-  	<p>To encourage people from all backgrounds to understand access and enjoy the natural environment. Funded through the Big Lottery Fund Changing Spaces programme and Countdown 2010. Access to Nature will only award grants to not-for-profit community based organisations in England.</p> <p>e.g. River Routes in Stockton, Groundwork North East</p>	£50,000-£715,000









Appendix A






5 of 15

	Source	Details	Funding
	Wetland Vision 	<p>A new fund for reinstating wetlands. The Wetland Vision is a partnership between the RSPB, the Wildlife Trusts, English Heritage, the Environment Agency and Natural England. Natural England has allocated a further £4,000,000 to the Wetland Vision partnership between 2009 and 2011, in support of landscape-scale wetland projects and the delivery of the targets for priority wetland habitats.</p> <p>e.g. Wicken Fen, East of England</p>	<p>The minimum threshold for project funding is £50,000 for project development, and £100,000 for habitat creation/ restoration work, including land purchase. Natural England will fund up to a maximum of 50% of total project costs.</p>
	Energy Crops Scheme 	<p>Natural England's Energy Crops Scheme aims to increase the amount of energy crops grown in England in appropriate locations. It offers grants to farmers in England for the establishment of <i>Miscanthus</i> and short rotation coppice.</p>	<p>Coppice (SRC). Payment will be made on the basis of :</p> <p>40% of Actual costs i.e. suppliers/material s/contractors costs and/or</p> <p>40% of On-farm costs i.e. use of own labour and machinery, where applicable.</p>
	Environmental Stewardship 	<p>Environmental Stewardship is an agri-environment scheme that provides funding to farmers and other land managers in England who deliver effective environmental management on their land.</p> <p>Entry Level Stewardship (ELS) provides a straightforward approach to supporting the good stewardship of the countryside. This is done through simple and effective land management that goes beyond the Single Payment Scheme requirement to maintain land in good agricultural and environmental condition. It is open to all farmers and landowners.</p> <p>Organic Entry Level Stewardship (OELS) is the organic strand of ELS. It is geared to organic and organic/conventional mixed farming systems and is open to all farmers not receiving Organic Farming Scheme aid.</p>	<p>Payment rates are £175 per hectare per year for two years for improved land and £600 per hectare per year for three years for established top fruit orchards.</p>



	Source	Details	Funding
	English Heritage Grants  	<p>English Heritage offers grants for:</p> <ul style="list-style-type: none"> Historic Buildings, Monuments and Designed Landscapes War Memorials Capacity Building for the Voluntary Sector Local Authorities - Area Partnership Funding Local Authority Grants to Underwrite Urgent Works Notices Acquisition Grants for Local Authorities Local Authority Grants for Conservation Staff Historic Environment Enabling Programme 	
	Historic Buildings, Monuments and Designed Landscapes 	<p>Organisations and individuals who have a legal responsibility for the repair of a historic building, scheduled monument or designed landscape have the opportunity to apply for grant funding for urgent repairs or other work required within two years to prevent loss or damage to important architectural, archaeological or landscape features. There is no maximum grant level that organisations or individuals can apply for, however the minimum grant available under this scheme is £10,000. The grant is managed by English Heritage (EH) and applications need to be submitted to EH relevant regional offices. Most grants will be conditional upon an agreement to provide public access.</p>	<p>There is no maximum grant level that organisations or individuals can apply for, however the minimum grant available under this scheme is £10,000.</p>
	Repair Grants for Places of Worship 	<p>This scheme is jointly funded by English Heritage and the Heritage Lottery Fund and gives grants for urgent repairs to listed buildings which are in regular use as public places of worship. The day-to-day administration of the scheme will be carried out by English Heritage.</p>	<p>£10,000-£250,000</p>
	Acquisition Grants for Local Authorities  	<p>This grant scheme focuses on help to local authorities to underwrite the cost of serving a Repairs Notice under sections 47, 48 and 52 of the Planning (Listed Buildings and Conservation Areas) Act 1990 on historic buildings which have fallen into a serious and dangerous state of decay.</p>	<p>Grant eligible expenditure can include the cost of professional services brought in by an authority to enable it to serve Repairs Notices, as well as the acquisition price.</p>









	Source	Details	Funding
	Aggregates Levy Sustainability Fund 	<p>A levy on aggregate extraction finances the ALSF which can be used to address historic and current local environmental and social costs of aggregate extraction. Grant schemes are normally in the range of 50% - 70% of eligible project costs.</p> <p>The ALSF is distributed on behalf of Defra by English Heritage, Natural England, MIRO, WRAP, BERR, DfT, CLG, selected Local Authorities and CEFAS. This includes a ring-fenced allocation for marine initiatives which is to be distributed by English Heritage and CEFAS.</p> <p>e.g. Teesmouth- The Story of Sand</p>	Not specified
	FC English Woodland Grant Schemes 	<p>The English Woodland Grant Scheme (EWGS) is the Forestry Commission's suite of grants designed to develop the co-ordinated delivery of public benefits from England's woodlands. EWGS is supported via the Rural Development Programme for England. The grants include:</p> <ul style="list-style-type: none"> Woodland Planning Grant (WPG) Woodland Assessment Grant (WAG) Woodland Regeneration Grant (WRG) Woodland Improvement Grant (WIG) Woodland Management Grant (WMG) Woodland Creation Grant (WCG) <p>e.g. Thames Chase Forest</p>	
	Woodland Planning Grant (WPG) 	<p>Woodland Planning Grant (WPG) contributes to the costs of producing management plans for existing woodlands that meet the planning requirements of the UK Woodland Assurance Standard.</p> <p>e.g. Berry Field Wood, Saltford</p>	£20 per hectare
	Woodland Assessment Grant (WAG) 	<p>The objective is to improve the sustainable management of woodland by ensuring that management decisions are based on good knowledge of the sensitivities and needs of the woodland and the opportunities to derive benefits for the public.</p>	Rate/hectare based on type (£2.80-£5.60/h)
	Woodland Regeneration Grant (WRG) 	<p>Woodland Regeneration Grant (WRG) contributes to the costs of making changes to the composition of woodland within the normal cycle of felling and woodland regeneration.</p> <p>e.g. Mersey and Red Rose Forests</p>	Rate/hectare based on type (£350-£1.750/h)



Appendix A






8 of 15

	Source	Details	Funding
	Woodland Improvement Grant (WIG) 	<p>Woodland Improvement Grant (WIG) funds capital investment in woodlands, over an agreed period, to create, enhance and sustain an increase in the quantity and quality of public benefits delivered.</p> <p>Within the East of England there is a specific Ancient Woodland Restoration WIG. Up to 80% of standard costs can be paid for applications for the protection and restoration of ancient woodlands within targeted parts of the region.</p>	Up to 80% of standard costs can be paid for
	Woodland Management Grant (WMG) 	<p>The objective of WMG is to:</p> <p>contribute to the additional costs of providing public benefits that arise from meeting the UK Forestry Standard for sustainable woodland management protect, increase and maintain the area of woodland under sustainable management and identify and address threats to woodland, prevent decline and increase the capacity for sustainable management.</p> <p>e.g. Birch and Rowdown Woods, Croydon</p>	Not specified
	Woodland Creation Grant (WCG) 	<p>This grant supports the establishment of new woodlands that meet national and regional priorities. The grant is available on a competitive and regional basis, using scoring systems that select applications based on best fit with the public benefit priorities.</p> <p>e.g. Maxey Quarry, Peterborough</p>	£1,800 per hectare, up to £3,800 per ha in priority areas
	Sport England 	<p>Sport England administers a number of funding programmes for sport related initiatives. These are:</p> <ul style="list-style-type: none"> Small Grants Sportsmatch Innovation Fund Rural Communities Sustainable Facilities Fund 	
	Small Grants 	<p>The Sport England Small Grants Programme has been set up to support local community sport projects which seek to increase participation, sustain participation or develop opportunities for people to excel at their chosen sport.</p>	£300-£10,000 but the total project cost cannot exceed £50,000
	Sportsmatch 	<p>Sportsmatch is funded by Sport England to support the development of grassroots sport in England. It makes awards to organisations running projects aimed at increasing participation in sports at community level, by matching eligible funding invested in community sport.</p>	£1,000-£100,000.








Appendix A






9 of 15

	Source	Details	Funding
	Innovation Fund 	The overall aim of this £5 million investment programme is to find and nurture genuine breakthroughs that will transform the way community sport looks and feels in the future	£10,000-£500,000
	Rural Communities 	The Rural Communities Themed Round aims both to address barriers and create new opportunities for participation in sport in rural communities. The programme is open to applicants from sports clubs, voluntary or community organisations, local authorities and educational establishments (such as schools, colleges and universities) which provide participation opportunities in community sport.	Not specified
	Sustainable Facilities Fund 	<p>Applications will need to meet the following criteria to be eligible for this funding:</p> <ul style="list-style-type: none"> Benefit all sections of the local community Be submitted by an organisation entitled to receive lottery funding Relate to a recognised sporting activity of more than one national governing body Comprise capital costs only which are eligible for lottery funding Include partnership funding in cash or in kind. The sports facility provision elements of the project for which funding is sought must not have started 	Not specified
	Low Carbon Buildings Programme 	Through the Low Carbon Buildings Programme grants are available to support the costs of renewable energy generation.	Up to £2,500 per property
Trusts	Esmée Fairbairn Foundation Biodiversity Strand 	<p>The Esmée Fairbairn Foundation is one of the largest independent grant-making foundations in the UK. It offers grants for education and learning, the natural environment and enabling disadvantaged people to participate more fully in society. Funding strands are available for biodiversity, heritage and food production.</p> <p>In relation to biodiversity the fund has a focus on increasing the knowledge base and testing out ideas for the future conservation of the habitats listed below. Applications are considered from research organisations, practical conservation charities and voluntary nature societies.</p> <p>e.g. Sheffield City Council</p>	A range of grants, with a small number of larger grants (£100,000+) complemented by smaller awards.







	Source	Details	Funding
	Esmee Fairbairn Foundation Food Strand 	<p>Funding is increasingly becoming available for food production. The Esmee Fairbairn Foundation supports work which explores the relationship between people and food setting aside £3million over three years from 2008, subject to annual review. A mix of practical projects that have wide significance, and some research and policy based work including the following are supported:</p> <ul style="list-style-type: none"> Improving access to appropriate, diverse and sustainable food in areas where availability is limited Exploring or enhancing understanding of the impact of food on wider well-being Demonstrating the positive role of food in a social context or how food can contribute to community cohesion Developing leadership in food policy and/or enabling greater connection among currently diverse food-related interests Scaling up effective local or regional practice that deserves a wider platform <p>e.g. Community Food Initiatives North East (Aberdeenshire and Moray)</p>	<p>A range of grants, with a small number of larger grants (£100,000+) complemented by smaller awards.</p>
	Landfill Tax Communities Fund 	<p>The Landfill Tax Communities Fund can provide funding for environmental initiatives managed by environmental bodies for projects located within 10 miles of an active landfill site. A number of trusts have been run by waste companies and independent bodies.</p> <ul style="list-style-type: none"> Biffaward Grantscape Wren SITA Trust CDENT Veolia Environmental Trust <p>e.g. Caldervale Nature Trail, Wakefield</p>	<p>See below</p>
	SITA Trust 	<p>SITA Trust operates under the Landfill Communities Fund distributing funds donated by the recycling and resource management company SITA UK. West Gateshead is within the zone for funding. There are two strands to the fund enriching nature and enhancing communities.</p>	<p>See below</p>
	Enriching Nature 	<p>Enriching Nature is the name of SITA Trust's funding programme for biodiversity/conservation projects. This programme supports projects within 10 miles of landfill sites in England. Enriching Nature supports projects with a focus on a species or habitat that has been identified as a priority by the UK Biodiversity Action Planning Process.</p> <p>e.g. Land for Lapwings, Northern Pennines</p>	<p>Grants up to £120,000</p>
	Enhancing Communities 	<p>Enhancing Communities - For community improvement projects within three miles of qualifying waste processing sites owned by SITA UK. Not for profit organisations, community groups, parish councils, local authorities and charities can apply.</p> <p>e.g. Reclaiming Our Parks, Coventry</p>	<p>Small Grants below £10,000</p> <p>Large Grants £10,001-£50,000</p>



	Source	Details	Funding
	The WREN Small Grant Scheme 	<p>The Small Grant Scheme is designed to assist applicants looking for funding on small projects that can make a difference to their local communities. This includes: Recreation Grounds, Nature Reserves, Village Greens, Public Footpaths/Towpaths, Multi-Purpose Sports Clubs, Playgrounds.</p> <p>e.g. Clyde Muirshiel Park, Glasgow</p>	£2,000-£15,000 but the total project cost should be under £50,000.
	The WREN Main Grant Scheme 	<p>Funding of between £15,001 and £50,000 is available for the following types of projects:</p> <ul style="list-style-type: none"> ▪ The provision, maintenance or improvement of a public park or other public amenity in the vicinity of a landfill site. ▪ The delivery of biodiversity conservation for UK species or habitats ▪ The maintenance, repair or restoration of a building or other structure, which is a place of religious worship or of historic or architectural interest <p>e.g. Anderton Boat Lift, Cheshire</p>	£15,001-£50,000 to projects which fall within WREN policy and the Landfill Communities Fund.
	The WREN Biodiversity Action Fund 	<p>A project's primary intent must relate to specific improvements to a site to aid the conservation of a priority habitat to help achieve national, regional or local biodiversity targets. Projects which involve research, survey and monitoring work and educational elements may be funded but only where there is a clear intent that this work will lead to actual conservation improvements. Grants for environmental organisations, voluntary groups, charities, not-for-profit organisations, community groups can apply for funding.</p> <p>e.g. Anderby Marsh Habitat Re-Creation, Lincolnshire</p>	£75,000-£250,000 to deliver biodiversity improvement projects.
	Green Energy Trust 	<p>Local community groups and not for profit organisations and charities within the UK can apply for grants for the installation of renewable technologies. The funding which is available through the Green Energy Trust will provide grants of up to 25,000 (but most projects receive around £10,000) for up to half the cost of the chosen renewable technology.</p> <p>e.g. Crosscanoby Community Centre, Maryport, Cumbria</p>	Up to 25,000 (but most projects receive around £10,000)
	Community Tree Planting Grant Woodland Trust 	<p>The Woodland Trust is offering grants for community tree planting initiatives. Community groups, associations and not for profit organisations such as community action groups, local residents groups, environmental action group, scouts, brownies, etc. can apply for grants of £100 for tree planting projects organised by the local community. The grant covers costs directly related to the tree planting project. This can include purchase of native trees, the purchase of other tree planting materials and publicity costs.</p> <p>e.g. Dalwood Parish Council</p>	£100



	Source	Details	Funding
	One Planet Living Grant Scheme (UK) B&Q 	Through the One Planet Living (OPL) Grant scheme, schools, community groups and charitable organisations can apply to their local B&Q store for funding to support a local community project. Projects must support at least one of the following themes; Environment/Energy Saving; Natural Habitats/Wildlife; and Local Culture/Heritage.	The scheme provides £50 to £500 (at retail cost) of B&Q materials
	Sustainable Energy Fund (England, Scotland and Wales) 	The E.ON Sustainable Energy Fund offers grants of up to £20,000 to community groups and not for profit organisations who wish to consider and implement sustainable energy projects in their buildings. Projects that can be considered include; the purchase and installation of one or more renewable energy technologies (e.g. wind, solar thermal, PV, wood etc); the renovation of existing facilities to incorporate micro-generation technology (e.g. the reinstatement of a watermill and the purchase of a turbine to produce hydro-electricity); an energy efficiency makeover for your building that could demonstrate significant energy savings and also behavioural change amongst users; and the use of new or innovative technology to deliver either energy savings or micro-generation capacity. To be eligible organisations must benefit specific community groups namely: Young people; Elderly people; and People in fuel poverty.	Up to £20,000
	Its Your Community (UK) Conservation Foundation and O2 	The Conservation Foundation and O2 have come together to operate this award scheme to help people improve their local environment. "Its Your Community" will provide awards of up to £1,000 to local organisations and individuals to support environmental projects such as turning derelict land into an amenity park or wildlife area, tree planting, creating a wildlife pond, renovating neglected river and canal footpaths, providing water butts and recycling facilities in village halls, etc. The fund is open to local amenity groups, parish and village councils, schools, youth clubs, heritage groups, environmental and conservation groups, and individuals who can show that their project will benefit their local environment. e.g. Jesmond Old Cemetery, Newcastle upon Tyne	Up to £1,000
	BP Conservation Programme (UK) 	The BP Conservation Programme (BPCP) supports and encourages conservation projects that address global conservation priorities at a local level. The Conservation Leadership Programme is offering Future Conservationist Awards of up to £12,500 to high potential teams who aim to develop their skills through practical conservation projects.	Up to £12,500



Appendix A

13 of 15

	Source	Details	Funding
	J Paul Getty Jr Charitable Trust	<p>The Trust started distributing funds in 1986, and since then it has awarded nearly £38 million to over 3,000 charities across the United Kingdom. The Trust's main aim is to support projects which help to relieve poverty, support disadvantaged people, and effect long-term change where help is not readily available from the public or private purse. The Trust also provides funding for the arts, and towards the conservation of the natural and built environment. The Trust makes grants through two funding streams. Main grants can be between £10,000 and £250,000 over a period of 1 to 3 years. Small grants of up to £5,000 are also available for smaller charities.</p> <p>e.g. Seaton Delaval Hall, Northumberland</p>	Main grants can be between £10,000 and £250,000 over a period of 1 to 3 years. Small grants of up to £5,000 are also available for smaller charities.
Local Initiatives / considerations	Community Infrastructure Levy (CIL)	<p>Used to secure developer funded initiatives and ongoing maintenance. Can be used by Local Authorities on adoption of a CIL Development Plan Document within the Council's Local Development Framework (LDF). CIL differs from previous s106 regimes in that it captures a much wider range of development thereby sharing the burden, and will also break the direct link between the obligation and the development, so that infrastructure spending can be managed at a strategic level.</p> <p>The purpose of CIL is to help provide for community infrastructure needs. It enables local authorities to apply a levy to all new developments (residential and commercial) in their area, subject to a low de minimis threshold. Where appropriate the local planning authority can use CIL to supplement a negotiated agreement, which may be required for site specific matters, including affordable housing and open space or play areas to serve an particular site.</p>	Variable
	Planning obligations and section 106 contributions	<p>Used to secure developer funded initiatives relating to their proposals. The funding should be directly related to local authority policies and published standards. Ongoing maintenance should be considered.</p> <p>e.g. Forest of Marston Vale, The Marston Vale Trust</p>	Variable
	Private sector funding through property and financial endowments	<p>Provision of income generating funds or assets which will assist with running costs and ongoing maintenance of green infrastructure. Endowments provide long-term funding for urban green spaces from the interest gained on investments in assets such as property or the stock market.</p> <p>e.g. Peterborough Development Corporation - Nene Country Park</p>	Variable
	Business / developer sponsorship	<p>Opportunities for generating revenue income, such as licensing and franchising, sponsorship, entry fees and fines, are ways in which funding from the private sector and users of urban green space can be sourced.</p> <p>e.g. Playground Project in Auchinlea Park, Glasgow, is sponsored by the Body Shop</p>	Variable



	Source	Details	Funding
	Established area based vehicles and partnerships	Area based partnerships can secure funding from the Homes and Communities Agency in addition to the Growth Fund. The voluntary sector can be engaged through the formation of parks „friends“ groups. e.g. Rossmere Park, Hartlepool, where the community was encouraged to take ownership of the park	Variable
	Funds accessible by various local charities, e.g. Groundwork, BTCV etc	Not-for-profit organisations and voluntary/community groups can contribute time and labour, raise funds and encourage community development and local ownership of urban green space. Charity status can also attract investment from funding bodies which may not have been accessible to the local authority. They can also access funds aimed at social inclusion and community cohesion due to the crosscutting nature of its work. e.g. Finsbury Park Volunteer day	Variable



APPENDIX A5
LDF GREEN INFRASTRUCTURE POLICY ADVICE

LDF GREEN INFRASTRUCTURE POLICY ADVICE

General

This paper sets out advice on appropriate draft Green Infrastructure (GI) policies for inclusion in the Central Lincolnshire Local Development Framework (LDF).

The advice is informed by recent best practice GI policy approaches for LDFs elsewhere, takes into account current national planning policy and seeks to reflect changes to the planning system proposed by the Government's draft National Planning Policy Framework (July 2011).

Central Lincolnshire Core Strategy

The Core Strategy provides the overarching vision, objectives and spatial development strategy for Central Lincolnshire, promotes strategic allocations/development areas and includes an Infrastructure Delivery Plan.

Advice for embedding GI planning requirements into the overall approach to growth and development to be provided by the Core Strategy for Central Lincolnshire is provided below. The advice takes into account the draft vision and objectives, policy themes and options for location of growth set out in the Central Lincolnshire Core Strategy Issues and Options consultation document (October 2010).

Vision

The draft vision includes specific reference to the provision of a GI network, as highlighted in bold below:

By 2026/2031, Central Lincolnshire will be a better place where the quality of life and wellbeing of its communities have been improved. It will be a place that everyone, whatever their age, will find to be a great place to live, work, invest, visit and enjoy life.

The population has increased by some 30-40,000 and this growth has helped to provide and support improved facilities for the area. Central Lincolnshire's communities are strong, prosperous, healthy, inclusive and sustainable. These communities have good quality housing of varying size, type and tenure including sufficient affordable housing to meet local needs.

Central Lincolnshire's communities, businesses and services are now in the forefront of the shift to a low carbon economy, sourcing most of their energy from renewable and decentralised sources, and achieving high standards of energy efficiency. Use of local resources, food and other products is now a key feature of the area, helping greatly to reduce its carbon footprint.

Growth has been delivered through a range of exemplar developments for living and working, built to the highest viable standards of sustainability and design quality. Brownfield sites have been redeveloped to help regeneration throughout Central Lincolnshire, while also helping to protect farmland and avoid urban sprawl. New development has been focused in master-planned developments providing for growth around Lincoln, Gainsborough and Sleaford, with which they have been well integrated, and contribute to the success of these settlements. The smaller towns and rural settlements have also seen growth to meet their needs.

Investment in the infrastructure required alongside new development has been coordinated and targeted towards the most sustainable and viable locations, including a range of transport improvements that have helped to minimise further traffic growth in the area.

Central Lincolnshire's local distinctiveness, built heritage and natural assets have been protected and enhanced by careful planning and management, and are a key attraction for both residents and visitors. The area now has an extensive network of 'green infrastructure', including the new Witham Country Park near Lincoln, contributing to nature conservation, leisure and climate change mitigation.

Central Lincolnshire has become an economically prosperous and competitive area. Job opportunities have grown significantly in both traditional sectors and through diversification into new sectors including green technologies, knowledge based industries and research. The area is known for its successful and enterprising economy which now attracts high levels of investment. Social deprivation and unemployment are now well below the national average.

The draft GI vision proposed by the Central Lincolnshire GI Study encompasses the existing wording highlighted in bold above.

Objectives

The draft objectives under Theme 5 'A Quality Environment' include specific reference to GI, as highlighted in bold below:

9. To protect and enhance Central Lincolnshire's inherited natural and built assets and ensure these continue to contribute to local distinctiveness

10. To improve and provide new Green Infrastructure by enhancing, developing and providing a network of multi-functional green spaces, parks, rivers and other corridors within and around settlements that connect them to each other and the wider countryside, improving access, environmental quality and biodiversity

11. To ensure that new development is well designed and constructed in a sustainable manner to maximise environmental performance and community safety and encourage healthy lifestyles.

The overall GI objective proposed by the Central Lincolnshire GI Study is in line with the existing wording highlighted in bold above.

Area-wide Policies

It is recommended that the Core Strategy includes GI requirements in a specific area-wide natural environment policy under the theme of 'A Quality Environment – Managing Central Lincolnshire's Natural & Built Heritage'. It is also recommended that GI requirements are incorporated as appropriate into area-wide policies for landscape character; managing water resources and flooding; and built heritage and design. The following draft policy is proposed as a starting point for discussion with the GI Steering Group.

POLICY X: PROTECTION AND ENHANCEMENT OF THE NATURAL ENVIRONMENT

The Councils' will seek to protect, maintain, restore and enhance the natural environment assets of Central Lincolnshire for the benefit of residents, visitors and wildlife by working with partners to implement the aims and proposals of relevant plans and strategies.

Development and investment will seek to expand and link larger areas of accessible open space and core areas of biodiversity value across Central Lincolnshire through creation and management of a strategic, multi-functional network of green corridors and green links, as illustrated on the Green Infrastructure Network Concept Plan. Where conflicts with biodiversity and other land use objectives can be avoided, the quiet enjoyment and use of natural greenspaces will be encouraged, alongside increased opportunities for promoting sustainable public access to the wider countryside.

All new developments will ensure that there will be no significant harm to internationally designated wildlife sites and protected species in or around the plan area. Development likely to result in significant harm to nationally designated sites and protected species will be assessed in accordance with national legislation and policy. Development will seek to avoid the loss or deterioration of irreplaceable habitats, including ancient woodland and aged or veteran trees.

In areas not protected through international or national designations, development will:

- ***Minimise fragmentation of habitats and seek to conserve and enhance existing biodiversity assets of acknowledged regional or local importance.***
- ***Where adverse impacts cannot be adequately mitigated and significant harm is unavoidable, off-set these impacts through provision of appropriate compensation measures, either off-site or as an integral part of the development, to achieve a net gain for biodiversity.***
- ***Support creation of a multi-functional Green Infrastructure Network through provision of new and enhanced areas of open space, wildlife habitats and links, both off-site and as an integral part of the development.***
- ***Contribute to the long-term maintenance and management of the Green Infrastructure Network.***

The area has a varied natural environment with assets ranging from international and national status, to those of local importance. These must be safeguarded and enhanced for the benefit of current and future generations. These include biodiversity (wildlife and habitats) and geodiversity (geological features) assets, as well as more general aspects such as chalk and limestone uplands, low lying vales, river valleys and fens, woodlands and lowland heaths. Assets of local importance, such as County Wildlife Sites, are valuable in their own right and in combination provide a significant resource.

The Central Lincolnshire Green Infrastructure Study provides a strategic framework for guiding investment in Green Infrastructure. It identifies opportunities for creation of a multi-functional network of green corridors and green links, having regard to factors such as accessibility, existing and potential open spaces, natural and semi-natural habitats, protection of the water environment, landscape, geodiversity and the fundamental need to contribute to ecological networks. These opportunities are expressed at a strategic level for the whole of the Central Lincolnshire area in the Green Infrastructure Network Concept Plan provided overleaf. This will inform local delivery of green infrastructure in priority areas supporting key growth locations, which will be taken forward through GI delivery plans and detailed policies in other elements of the LDF as appropriate.

Many of Central Lincolnshire's natural and semi-natural habitats have been lost and fragmented with once extensive areas of habitat reduced to small remnants isolated from each other and surrounded by relatively inhospitable land uses, reducing biodiversity and increasing vulnerability. To address these landscape-scale issues, the Lincolnshire Biodiversity Partnership is seeking to identify and map ecological networks for Central Lincolnshire informed by biodiversity opportunity mapping studies. The overall aim of the ecological networks is to promote connectivity at the landscape-scale between core areas of existing clusters of designated wildlife sites, thus allowing dispersal of wildlife in response to climate change and other factors. To achieve this, restoration and re-creation of priority habitats outside of the core areas will also be required, together with provision of wildlife corridors and stepping stones secured through local green infrastructure improvements, including opportunities provided in association with new development. The creation of the ecological network will be a long-term process that is likely to take several decades to complete, but is fundamental to meeting local and regional biodiversity targets. The Lincolnshire Biodiversity Partnership's biodiversity network proposals should be used to inform the implementation of the Green Infrastructure Network.

**Green Infrastructure Network Concept Plan - Central Lincolnshire
(Figure 1.4a)**

NB. Special Protection Areas (SPAs), Special Areas for Conservation (SACs) and Ramsar sites are internationally designated wildlife sites protected under the Habitats Regulations. Whilst there no such designations within Central Lincolnshire, the above policy may need to include a requirement for development to provide 'Suitable Accessible Natural Greenspaces' (SANGS) to avoid significant harm to internationally designated sites just outside the plan area as a result of recreational pressures arising from growth proposals. This requirement will be informed by the Habitats Regulations Assessment of the Core Strategy.

Policies for Places

It is recommended that GI requirements are incorporated into policies that apply to locations for major new or expanded communities within defined parts of the plan area. The following draft policy wording is proposed as a starting point for discussion with the GI Steering Group.

POLICY X: THE GAINSBOROUGH AREA

Masterplanning of major developments in the Gainsborough Area will be informed by good practice GI design principles, and meet eco-town development standards in relation to the quantity, quality and accessibility of GI provision, and biodiversity. Development will deliver appropriate scales and types of local GI that contributes to and links with the wider Green Infrastructure Network.

In relation to GI and biodiversity, growth in the Gainsborough Area will:

- *Contribute to the provision of Strategic Green Access Links within a landscaped setting to connect communities and businesses with local leisure opportunities/destinations, greenspaces and public transport services.*
- *Protect, enhance and create Local Green Links to connect the Gainsborough Urban Green Grid to the Strategic Green Access Links, greenspaces and habitats in the countryside around the town, including the Trent Valley, and also to the adjacent villages of Morton and Lea.*
- *Provide extensive levels of new accessible natural greenspace to meet the needs of the expanded population for outdoor recreation space, and act as ecological buffer zones to protect sensitive wildlife habitats.*
- *Retain existing important natural greenspaces and provide significant levels of habitat re-creation to create stepping stones to link existing wildlife habitats.*
- *Protect undeveloped land as settlement breaks between Gainsborough and Morton, and between Gainsborough and Lea.*
- *Protect the Gainsborough Escarpment open space and the views that it affords across the Trent Valley from inappropriate development.*
- *Enhance the environmental quality of landscapes that contribute to the character and setting of the town and its environs, including the Area of Great Landscape Value, key access corridors/gateways, settlement breaks and woodlands.*
- *Protect, enhance and promote managed access to archaeological sites, historic landscapes and other historic environment assets as part of the GI network.*
- *Use green roofs and walls to provide wildlife linkages between greenspaces.*

Provision of significant levels of local GI is essential to ensure the long-term sustainability of the proposed scale of development in the Gainsborough Area. It must be sufficient in scale and type to meet the needs of expanded communities for accessible natural greenspace without adverse impacts on areas of high ecological importance, and make a substantial contribution towards meeting local and regional biodiversity targets.

The Central Lincolnshire Green Infrastructure Study identifies priority areas for GI required to support the key growth locations around Gainsborough as shown on the Green Infrastructure Network Concept Plan. Local delivery of GI in this area will be taken forward through a GI delivery plan and detailed policies in other elements of the LDF as appropriate, including the Gainsborough Area Action Plan.

Good practice design principles for embedding GI into masterplanning of new development, including sustainable urban extensions in particular, is provided by the Milton Keynes Green Infrastructure Design Guide. The Central Lincolnshire Green Infrastructure Study recommends standards for the quantity, quality and accessibility of GI provision, and for biodiversity, based on the national eco-town development standards. It is expected that these standards will be used to inform the masterplanning of major development in the Gainsborough Area.

Green Infrastructure Network Concept Plan – Gainsborough Area (Figure 1.4b)

POLICY X: THE LINCOLN AREA

Masterplanning of major developments in the Lincoln Area will be informed by good practice GI design principles, and meet eco-town development standards in relation to the quantity, quality and accessibility of GI provision, and biodiversity. Development will deliver appropriate scales and types of local GI that contributes to and links with the wider Green Infrastructure Network.

In relation to GI and biodiversity, growth in the Lincoln Area will:

- *Support the delivery of the Witham Valley Country Park between Swanpool and Whisby Nature Park to the south and west of Lincoln through creation of a substantial, accessible network of managed outdoor spaces for the benefit of residents and visitors.*
- *Contribute to the provision of Strategic Green Access Links within a landscaped setting to connect communities and businesses with local leisure opportunities/destinations, greenspaces and public transport services.*
- *Protect, enhance and create Local Green Links to connect the Lincoln Urban Green Grid to the Strategic Green Access Links, greenspaces and habitats in the countryside around the city, including the Witham Valley, and also to the surrounding 'satellite' villages.*
- *Provide extensive levels of new accessible natural greenspace to meet the needs of the expanded population for outdoor recreation space, and act as ecological buffer zones to protect sensitive wildlife habitats.*
- *Retain existing important natural greenspaces and provide significant levels of habitat re-creation to create stepping stones to link existing wildlife habitats.*
- *Protect corridors of undeveloped land as green wedges between Lincoln and the surrounding 'satellite' villages.*
- *Protect the Lincoln Edge Escarpment and its setting from inappropriate development.*
- *Enhance the environmental quality of landscapes that contribute to the character and setting of the city and its environs, including key access corridors/gateways, green wedges and woodlands.*
- *Protect, enhance and promote managed access to archaeological sites, historic landscapes and other historic environment assets as part of the GI network.*
- *Use green roofs and walls to provide wildlife linkages between greenspaces.*

Provision of significant levels of local GI is essential to ensure the long-term sustainability of the proposed scale of development in the Lincoln Area. It must be sufficient in scale and type to meet the needs of expanded communities for accessible natural greenspace without adverse impacts on areas of high ecological importance, and make a substantial contribution towards meeting local and regional biodiversity targets.

The Central Lincolnshire Green Infrastructure Study identifies priority areas for GI required to support the key growth locations around Lincoln as shown on the Green Infrastructure Network Concept Plan. Local delivery of GI in this area will be taken forward through a GI delivery plan and detailed policies in other elements of the LDF as appropriate, including the Witham Valley Country Park Area Action Plan, Central Lincoln Area Action Plan and the South East Quadrant Area Action Plan.

Good practice design principles for embedding GI into masterplanning of new development, including sustainable urban extensions in particular, is provided by the Milton Keynes Green Infrastructure Design Guide. The Central Lincolnshire Green Infrastructure Study recommends standards for the quantity, quality and accessibility of GI provision, and for biodiversity, based on the national eco-town development standards. It is expected that these standards will be used to inform the masterplanning of major development in the Lincoln Area.

Green Infrastructure Network Concept Plan – Lincoln Area (Figure 1.4c)

POLICY X: THE SLEAFORD AREA

Masterplanning of major developments in the Sleaford Area will be informed by good practice GI design principles, and meet eco-town development standards in relation to the quantity, quality and accessibility of GI provision, and biodiversity. Development will deliver appropriate scales and types of local GI that contributes to and links with the wider Green Infrastructure Network.

In relation to GI and biodiversity, growth in the Sleaford Area will:

- *Contribute to the provision of Strategic Green Access Links within a landscaped setting to connect communities and businesses with local leisure opportunities/destinations, greenspaces and public transport services.*
- *Protect, enhance and create Local Green Links to connect the Sleaford Urban Green Grid to the Strategic Green Access Links, greenspaces and habitats in the countryside around the town, including the Sleas Valley/Sleaford Navigation corridor, and also to the adjacent villages.*
- *Provide extensive levels of new accessible natural greenspace to meet the needs of the expanded population for outdoor recreation space, and act as ecological buffer zones to protect sensitive wildlife habitats.*
- *Retain existing important natural greenspaces and provide significant levels of habitat re-creation to create stepping stones to link existing wildlife habitats.*
- *Protect corridors of undeveloped land within Sleaford as green wedges.*
- *Enhance the environmental quality of landscapes that contribute to the character and setting of the town and its environs, including key access corridors/gateways, green wedges and woodlands.*
- *Protect, enhance and promote managed access to archaeological sites, historic landscapes and other historic environment assets as part of the GI network.*
- *Use green roofs and walls to provide wildlife linkages between greenspaces.*

Provision of significant levels of local GI is essential to ensure the long-term sustainability of the proposed scale of development in the Sleaford Area. It must be sufficient in scale and type to meet the needs of expanded communities for accessible natural greenspace without adverse impacts on areas of high ecological importance, and make a substantial contribution towards meeting local and regional biodiversity targets.

The Central Lincolnshire Green Infrastructure Study identifies priority areas for GI required to support the key growth locations around Sleaford as shown on the Green Infrastructure Network Concept Plan. Local delivery of GI in this area will be taken forward through a GI delivery plan and detailed policies in other elements of the LDF as appropriate, including the Sleaford Area Action Plan.

Good practice design principles for embedding GI into masterplanning of new development, including sustainable urban extensions in particular, is provided by the Milton Keynes Green Infrastructure Design Guide. The Central Lincolnshire Green Infrastructure Study recommends standards for the quantity, quality and accessibility of GI provision, and for biodiversity, based on the national eco-town development standards. It is expected that these standards will be used to inform the masterplanning of major development in the Sleaford Area.

Green Infrastructure Network Concept Plan – Sleaford Area (Figure 1.4d)

Area Action Plans

Area Action Plans provide the long-term vision and detailed guidance for delivery of development and infrastructure to support growth in specific areas. The following Area Action Plans are currently proposed by the Central Lincolnshire Local Development Scheme (January 2010):

- Gainsborough
- Witham Valley Country Park
- Central Lincoln
- South East Quadrant Area (Lincoln)
- Sleaford

It is recommended that the Area Action Plans include a specific GI policy to provide detailed guidance for delivery of GI to support development in the respective areas. At this stage, the following draft 'model' policy is proposed as a starting point for discussion and further development with the GI Steering Group.

POLICY X : GREEN INFRASTRUCTURE PROVISION

A green infrastructure network of multi-functional, high quality green spaces and links will be created in accordance with the map below to support the sustainable growth of [Name]. Priority will be given to investment in locations with identified needs and opportunities for green infrastructure provision, including regeneration sites, Sustainable Urban Extensions and for key green corridors and links. An action plan for delivery of a range of green space and access projects within these areas is provided in the [Name] Green Infrastructure Delivery Plan.

The green infrastructure network will be protected, managed and, where necessary, enhanced by:

- ***Ensuring that proposals for housing and employment development retain, enhance and/or create green corridors and spaces to provide linkages between the development site and the town centre, urban fringe areas and the wider countryside, and provide a net increase in biodiversity.***
- ***Not permitting development that will cause significant harm to the functioning of the green infrastructure network, particularly in relation to reducing the impacts of climate change.***
- ***Where an adverse impact on green infrastructure is unavoidable, only permitting development if suitable mitigation measures are provided to ensure the multi-functionality and connectivity of the green infrastructure network is maintained.***
- ***Requiring development to provide or contribute towards the provision of on- or off-site green infrastructure as appropriate through planning conditions or legal agreement to address identified deficiencies. Provision of financial contributions will be required to include arrangements for on-going management and maintenance of green spaces where necessary.***

This policy contributes towards achieving objectives X, Y and Z.

'Green infrastructure' is the network of green spaces and links that supports natural processes, and delivers ecosystem services and benefits integral to the health and quality of life for [Name]'s communities. This includes, for example, flood attenuation and water resource management, countering the heat island effect of urban areas, and providing opportunities for access to nature and food production. Green infrastructure includes a range of different green space types: parks, gardens and recreation grounds; amenity green spaces; natural green spaces; green corridors and access routes; and other open spaces, such as allotments and churchyards. [Name]'s green infrastructure network comprises both green spaces within urban areas, and larger spaces in the countryside around the town. It also includes green corridors that are significant green infrastructure assets for [Name].

The current national planning policy framework for the natural environment, countryside and landscape

is set out in PPS 1, 7 and 9. The policies are aimed at sustainable development which protects the countryside, protects and enhances biodiversity, and provides for access to the countryside. PPS 12 calls for development plans to be underpinned by evidence of what green infrastructure is needed to support the proposed amount, type and distribution of development for an area.

A key aim of the Area Action Plan will be to increase access to the countryside and deliver green infrastructure for the Sustainable Urban Extensions. Investment in green infrastructure provision for [Name] will help to tackle existing deficits in the provision of accessible green space, and help provide and protect wildlife corridors, open space and accessible land. It will also help to create new areas of habitat. This will be achieved through opportunities within the plan area for delivery of new and enhanced green infrastructure that is required to meet the needs of existing and future communities.

The Central Lincolnshire Green Infrastructure Study provides a strategic framework for green infrastructure planning, and identifies strategic opportunities to plug deficiencies in different types and locations of green infrastructure in the area. The [Name] Green Infrastructure Delivery Plan provides a key part of the evidence base for the Area Action Plan, and identifies priorities for green infrastructure provision to support the sustainable growth of [Name] over the next 15 years. The [Name] Green Infrastructure Delivery Plan provides a framework for the planning, implementation and management of a multi-functional green infrastructure network of green spaces and links. It provides an up-to-date evidence base of the range of existing environmental and cultural assets in the plan area, and identifies opportunities for plugging deficiencies in green spaces and links, including those identified by the Central Lincolnshire Study. The Delivery Plan also recommends how [Name]'s green infrastructure network might be delivered, and provides guidance to assist developers in embedding green infrastructure into development proposals.

APPENDIX A6
REVIEW OF GREEN INFRASTRUCTURE
MANAGEMENT AND GOVERNANCE OPTIONS

REVIEW OF GREEN INFRASTRUCTURE MANAGEMENT AND GOVERNANCE OPTIONS

A review of options that may be relevant to the future management and governance of GI in Central Lincolnshire is set out below.

Existing Arrangements

A number of organisations are actively involved in greenspace management and governance within Central Lincolnshire. Each demonstrate a diverse experience and employ a range of methods and approaches. These include:

- **Lincolnshire County Council** is responsible for the maintenance of works related to the landscape, nature conservation, trees and woodlands, interpretation and promotion of access to the countryside. The County also provides advice on a number of countryside projects and initiatives, such as the Lincolnshire Wolds Countryside Service which helps to protect and enhance the landscape through partnership projects with local landowners, farmers, parish councils, businesses and residents of the Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB). The County also provide the official Rights of Way service for Lincolnshire and are charged with implementing the Rights of way Improvement Plan.
- **City of Lincoln Council** has an established track record of managing greenspaces. This includes the Arboretum; three large areas of common land - West Common (100ha), South Common (80ha) and Cowpaddle Common (16ha); more than 900 allotments spread across 18 sites within the City; Hartsholme Country Park; and the adjacent Swanholme Lakes Local Nature Reserve (63ha). It also has responsibility for a range of equipped outdoor play areas and sports pitches.
- **West Lindsey District Council** is responsible for grounds maintenance on all Council owned land. This includes footpaths; amenity areas; churchyards and cemeteries; village greens; parks; gardens. In West Lindsey District, parish and town councils are responsible for managing outdoor play facilities.
- **North Kesteven District Council** currently manages greenspaces such as Lollycocks Field Local Nature Reserve (5.5ha) and North Hykeham Millennium Green (16.5ha), and is responsible for maintenance on all Council owned land within the District. In North Kesteven District, parish and town councils are responsible for managing outdoor play facilities.
- **Town Councils and Parish Councils** have responsibility for managing many of the open spaces, amenity areas and outdoor play facilities in Central Lincolnshire. The management works are funded in part through the Community Charge and also on new sites from commuted sums from developers and applicants.
- **Lincolnshire Wildlife Trust** manages around 100 local nature reserves covering 3300ha throughout the historic county of Lincolnshire, including a range of sites within Central Lincolnshire such as Whisby Nature Park (150ha), Scotton Common (65ha) and Fiskerton Fen (7ha) for example.
- **Other organisations** involved with greenspace management, usually in partnership with a number of the above bodies, includes the BTCV, the Woodland Trust, RSPB, the Environment Agency, Internal Drainage Boards and the Forestry Commission for example.
- **Private landowners** comprise the single largest group responsible for the management of green infrastructure, particularly in rural areas, and represent a major player in the management and potential delivery of GI within Central Lincolnshire. Environmental Stewardship (ES) provides a range of opportunities to enhance the land for biodiversity and access. A number of the landowners, including estates and farmers, within Central Lincolnshire have entered into agreements with Natural England for Countryside Stewardship and Environmental Stewardship. These include sites with some access and others with open access. In rural locations, there is typically a lower provision of 'accessible natural green space' therefore schemes such as ES can make a vital contribution to the delivery of the network of GI in the countryside and linking to settlements.

Green Infrastructure Management and Governance Options

The following overview of green infrastructure management and governance options is based on a review of the approaches to the management and aftercare of green infrastructure provided in the Greater Norwich Green Infrastructure Delivery Plan¹⁶¹.

Option 1 – Local Authority Management Model

The default option for the management of the future open spaces is to continue with the local authority adopting the open spaces. Although each authority may use different methods, the open spaces could be transferred into public ownership and funded in the long term by local taxpayers. The relevant advantages and disadvantages of retaining the existing system of public ownership are set out below.

Advantages

- Track record of managing a wide variety of open spaces.
- Existing structure of depots, plant and staff.
- Economies of scale arising from a city wide organisation.
- Accountability to residents through local elections.
- Future funding can be raised through Council Tax
- Strategic overview of the recreational needs e.g. from PPG17 studies
- Commuted sums for maintenance arising from S106 obligations contribute to the management cost after adoption.
- Potential for using and combining off-site commuted sums from a number of other sites for strategic open space facilities.
- Existing involvement as planning authority which includes the negotiation and approval of the design and landscape management plans for open spaces as part of the planning application process and clearance of relevant conditions.

Disadvantages

- Open space management is not a statutory service.
- Funds for open space management from Council's budgets will always be under pressure from competing services. This can affect medium and long term planning of open spaces.
- Size of commuted sums or endowments provided in accordance with the relevant Council's Planning Obligations strategies may be insufficient.
- Certain sites may cross authority boundaries.
- Potentially fragmented approach to the management of open spaces where Town and Parish Councils can take different approaches.
- Concern over the risks associated with new and larger open spaces e.g. water features and SUD's.
- Certain Town and Parish Councils may not wish to take on the responsibility for some of the larger new sites, particularly where the facilities serve a more strategic role.
- There could be a range of landscape contractors operating on sites to variable standards of performance.

Summary and Recommendations

The minimum size of commuted sums for the maintenance of open spaces would typically not be adequate to provide an investment return sufficient to manage the sites in perpetuity. In these circumstances, and in the absence of other sources of maintenance income, there will be an inevitable increase in the funds required to maintain adopted areas over time and this cost is likely to fall at least in part upon the Council Tax payers. However, as the developments will by their nature lead to an increase in local residents, many who will be contributors to local taxation, then it can reasonably be argued these increased payments should be used in part for the upkeep of the open spaces. It should be noted that if concerns about the long-term management are not resolved at the planning stage then local authorities do not have to adopt areas of open space from the developer. It is recommended that:

¹⁶¹ Greater Norwich Green Infrastructure Delivery Plan (2009, The Landscape Partnership for the Greater Norwich Development Partnership)

- Local authorities should take a robust stance in the negotiation of commuted sums. They should identify circumstances where additional contributions over and above the minimums set out in the Planning Obligations strategy should apply. This could include the inclusion of property as part of an endowment linked to a development to help fund future maintenance.
- The Councils should review the length of time for which commuted sums are meant to cover and consider extending the period to provide more secure funding for the future management of open spaces. This should involve aligning the time period with the longest.
- The Councils should consider the use of a Community Infrastructure Levy to contribute towards the provision and management of open spaces and green infrastructure coming forward from the growth areas. If this approach is acceptable the service charge should ideally be diverted to an Independent Trust to administer (see Option 3) to safeguard the long term funding.
- The Councils should review how Section 106 monies and endowments are allocated and used. All interest from such sums should be retained within the same cost centre to help with the future management of open spaces.
- The Councils should review the models by which Section 106 monies are transferred from the developer. They should explore a progressive partnership approach where the developer pays for a proportion of the maintenance cost on a descending scale over time and the local authority likewise increase their contribution to meet the balance as the sites mature.
- The Councils should consider creating 'protected budgets' for open spaces adopted as part of the growth agenda and that this approach is also considered to be extended to existing open spaces at the City, town and parish level.
- The Councils should actively seek additional sources of grants and funding for implementation and management projects.

Option 2 - Private Management Company Model

The contrasting alternative to Option 1 is where the management responsibilities are retained by the landowner/developers, with the potential that they may be transferred either in part or wholly to the local residents related to the development rather than the wider community. Transfer to the residents would normally be arranged through a management company set up after the development or each phase thereof was complete. Such a body would have clear objectives to manage certain areas of open space to a set specification and to achieve this it would normally place a service charge on the local residents. The calculation of this sum would vary between properties dependent on size or access to the facilities, e.g. a detached house overlooking a park may pay more than a smaller terrace property two streets away. The approach can be used for areas of semi-private open space and larger areas of strategic areas. Resources could be drawn from e.g. funds that would otherwise have contributed to a commuted sum and/or some form of income generation such as returns on property within the development retained by the developers. It is envisaged that in most cases the open spaces would have to be funded in perpetuity.

Advantages

- No large endowments or commuted sums are required of the developer at the outset.
- The developer can retain responsibility for managing the open spaces to their required standard to attract new customers during all phases of the build programme.
- Local authorities do not have any financial responsibility for the open spaces and therefore there is no impact on Council Tax.
- Local authorities do not have to manage or maintain the areas of open space.
- Local authorities do not have any liability for the open spaces, which may include, e.g. SUD's or water features.
- Local community groups could be included as part of the management subject to the agreement of the developers/landowners.
- A competitive management cost can be established and maintained through a market let contract system.

Disadvantages

- Public access to some or all of the sites may have restrictions which could limit the value of the green spaces to the wider community.
- Resentment may occur on behalf of the residents who pay a service charge, particularly if there is general access from other residents in the area who do not pay the charge.

- The control of the standards of management may be more difficult to enforce if the sites are not maintained by them. However a management plan could be required by the planning authority under a planning condition or as part of a 106 agreement. Such an arrangement could be closely monitored and reviewed on site, say on an annual basis.
- Depending on the composition of the Management Company, there may be a limited voice from residents and therefore a potential lack of accountability for the management of the open spaces. Although local residents groups could be involved in such companies the local population living outside the development would not have a direct voice in the management of the open spaces which is particularly significant when they are fulfilling a more strategic function.
- Registered Social Landlords (RSL's) and tenants of social housing may be unwilling or unable to pay the management charge. This could create tensions within the community. However experience from the new settlement at Poundbury in Dorset indicates this does not need to be a problem as here the Guinness Trust has picked up responsibility for the service charge.
- The management company/developer would have a long term responsibility/liability subject to increasing costs.
- If the management company fails then the land and responsibility would revert to the next closest organisations i.e. Local Authority or suitable Trust.

Summary and Recommendations

Option 2 represents a viable and attractive option in financial terms to local authorities with an apparent 'no cost' implication for the wider Council Tax payer. It is critical that to work a clear legal obligation is required to ensure that the strategic elements of the open space are available to the public and not just the residents of the local development. It is recommended that:

- Applicants and landowners are discouraged from retaining the ownership of the areas of strategic open space and that they are transferred together with an agreed commuted sum and endowment to either the appropriate local authority or a Trust.
- If ownership is retained privately then a clear and binding Section 106 agreement should be secured prior to the commencement of development allowing for unrestricted public access in perpetuity across the areas of open space. These areas shall be made available in accordance with an agreed phasing plan and timescale.
- A fully detailed landscape management plan and specification is required to be approved by the local authority/s before works commence. That provision is made within this plan for the regular monitoring by the local authorities and if required enforcement taken to ensure that the agreed programme of management is met.

Option 3 – Trusts Model

The Trust approach is the third main option that could be employed. This represents a middle ground approach and has the scope to involve a number of partners with an interest in the open spaces working together for a common purpose. A Trust refers to the use of a not-for-profit separately registered body set up to hold assets (in this case, the open space/public realm) in perpetuity. The legal model for such a body has normally been a charitable company limited by guarantee, although increasingly the community interest company is being seen as a viable alternative. Both models share the essential characteristic of protecting assets that are held by the organisation and ensuring that those assets are held for the long-term benefit of the community. It is acknowledged that many of the best known and most effective examples of the use of a Trust relate to one of two specific scenarios, namely:

- For a new settlement. In these circumstances the role of the Trust can be "built in" from the beginning, by ensuring that sufficient assets are available to produce a return to ensure long term sustainability or alternatively a recurring service charge mechanism can be created; or
- Where a Trust is created with a wider remit than simply the management of a single green space/asset.

Those who need to be involved in the process will vary according to whether the Trust has a neighbourhood, ward, city or sub-regional remit but should always include the relevant local authorities, the other statutory sector agencies involved, the voluntary sector and the community, although the exact form of community involvement will vary. Public sector organisations often, and on many occasions

rightly, have concerns about the governance and accountability of third sector bodies when the latter are managing public assets. As such, if a Trust model is adopted, it is recommended that a number of key components are put in place to address these concerns:

- That there are clear and transparent mechanisms for agreeing how Board members are appointed, including a term of office and a system for dealing with vacancies;
- That there be at least some local authority representation on the Board (bearing in mind the constraints of Part V of the Local Government and Housing Act 1989, and accepting that there will not be a local authority controlling interest - unless this is clearly in the local authority's best interest);
- That local authorities have the right to select their Board members (i.e. that appointments cannot be vetoed by the Trust);
- That appropriate legal advice is taken during the process to ensure that the final documentation reflects these aims.

Trusts could in principle operate on a single site or apply to a combination of sites within a wider portfolio. In the context of Central Lincolnshire, it is proposed that the type of Trust which should be promoted is larger in structure and able to provide a more strategic overview and function as a viable alternative to Option 1 and 2 as set out above. A larger organisation could bring considerable economies of scale to the management and running of the sites.

Advantages

- Funding and resources can be effectively ring fenced to give surety of future income.
- A governance structure can be established to reflect various interest groups and this can be structured to vary as the role of different groups changes over time.
- A Trust would have a set of clear aims and objectives.
- A Trust should be largely free from local political influences.
- Trustees could appoint staff and/or let contracts to undertake the main aims of the Trust.
- Trusts with charitable status could be exempt from certain charges and tax.
- Trust could apply for a variety of grant aid either independently or as part of a diverse partnership.
- A Trust is more likely to effectively involve the local community through the work of volunteers in practical maintenance tasks, education, fund raising and administration.

Disadvantages

- A sizeable endowment and/or commuted sum would be required to make the approach viable. NB: this could be supplemented by other means, including grant aid and income generating ideas.
- There needs to be clear support from the main partners who will provide representatives for the Board of Trustees.
- If the Trust fails then the resources are likely to revert back to the closest similar organisation, which is likely to be the relevant Local Authority.
- Local accountability may be under question where there are no clear opportunities for local representation.
- There will be setting up costs to establish a new organisation.
- It will take time to establish a new Trust.

Within the Central Lincolnshire context, two variations on the Trust approach have been identified as follows:

Option 3A – Land Trust Model

The Land Trust (LT) was formed in 2004 as a company limited by guarantee (a subsidiary of English Partnerships, now the Homes & Communities Agency) and became a charity in 2010. The aim of the LT is to provide long-term sustainable management of open spaces across the country. The Trust is planning to acquire a balanced portfolio of sites with a mix of risk including both greenfield and brownfield sites across the UK. By acquiring a large portfolio of sites they can build a significant body of endowments which together will be able to deliver higher rates of financial return than smaller individual endowments could achieve. The LT prefers to acquire the freehold of a site but will consider the leasehold (usually there is a minimum term of 99 years but currently a lease of 25 years is being considered) with the potential for say a local authority to retain the freehold. By holding the freehold the Trust has the ultimate

responsibility for the land should there be any issue with management in the long term. Methods additional to endowments are currently being negotiated to partly fund the future management costs of sites. These include service charges, income earned from activities on site and from letting of commercial properties. In addition, the scale of the operation should be able to bring considerable economies of scale in the management structure.

In terms of site management and maintenance, the LT always look to find a local partner or partners to manage the site/s in a given geographical location. Such partners are required to 'bid' for the management of the sites and demonstrate their suitability to carry out the work. The LT are particularly keen on the inclusion and engagement of local community groups and activities as part of the management of the sites. It is highly possible that the expertise of certain groups will relate better to some types of sites more than others and the LT would look to exploit these specialisms.

In the event that no suitable local partners come forward or are found for the management of the sites, then the LT would undertake to appoint a suitable landscape contractor to manage the areas until such local partners are identified. Local steering groups have been established where appropriate. Further specific individual advantages and disadvantages with the LT are identified below:

Advantages

- Independent Trust with ability to manage large asset base
- Ring fenced funding
- Low overall management costs
- No significant impact on local taxation
- Work with a wide range of existing or new local partners
- Promotes community engagement in management
- Responsible for sites in perpetuity
- Experience in developing strategy
- Experience in costing models and negotiating S106 agreements
- As an established Trust could be part of negotiations at an early stage
- Backed by the Government and the Homes & Communities Agency

Disadvantages

- A significant endowment is required to manage the site 'in perpetuity', (LRT will consider lesser lengths but 'in perpetuity' is their preference). Endowments could be reduced if additional methods of funding are included
- Loss of local governance
- Lack of local representation on the LRT board
- Potential loss of freehold
- Minimum 99 year lease (although 25 years is being considered)
- Management standards need to fit LRT model to be viable
- Young organisation still to be proven

The LRT prefer to secure a number of sites in an area rather than one or two smaller sites. If successful this arrangement could provide a suitable platform for wider acquisitions in the Central Lincolnshire area, which could include some smaller to medium sized sites within the city, towns or parishes which may not be a viable option in their own right.

Option 3B – Central Lincolnshire Green Infrastructure Trust Model

One main disadvantage with the LT model is that the ownership of the areas would pass outside of the local authorities in Central Lincolnshire. This could result in the sense of loss of ownership/involvement and democratic accountability. The Councils could address this concern by retaining the freehold and agree a lease with LT e.g., for 99 years. However the endowments costs required by the LT are likely to be the same as providing them with the freehold. The question of ownership is an issue of governance, ownership and independence and ultimately a political decision will need to be made. As an alternative to Option 3A, a specific Central Lincolnshire Green Infrastructure Trust could be established. The remit of such a new organisation could encompass not only the overall management of the open spaces associated within the growth area sites but also to look for related initiatives in support of the delivery of

the wider Green Infrastructure Strategy. Individual sites would need to be acquired by negotiation and involvement with the planning permission and Section 106 agreement process. It is considered that to work most effectively Option 3B would require the local authorities to be in support of and be represented on the Trust Board.

More specific advantages and disadvantages of a Central Lincolnshire Green Infrastructure Trust are set out below:

Advantages

- Local identity
- Scope to include a number of key local partners on the Board of Trustees
- Ability to effectively tackle schemes that straddle the district boundary
- Ability to develop wide portfolio of sites
- Independent Trust with ring fenced funding derived from endowments and Section 106 agreements
- Experience of using the expertise of many existing local partners
- Ability to promote the strategic objectives for delivery of the wider Green Infrastructure Network in offsite locations where acquisition may not be necessary or desirable
- Scope to bid for additional funding from a wide range of sources for use in the area

Disadvantages

- Need to establish governance and structure
- Resources to create team and provide a base/s for operations
- Significant endowment required to provide basis for viability
- Potential conflict between existing partners and local authorities
- Limited direct accountability to general public

Within a Central Lincolnshire Green Infrastructure Trust, the actual mix of board members should reflect the relative 'weight' of the representation of each stakeholder and the role they will play within the Trust. It should be noted that if the portfolio of sites within a Central Lincolnshire Green Infrastructure Trust was geographically dispersed, then achieving the correct local community representation may also be more difficult to achieve from a number of more scattered local communities.

Summary and Recommendations

A Trust could provide a more independent base both in terms of governance and finance than either Options 1 or 2. The LT model (Option 3a) brings the support of a national organisation and experience of managing large areas of open space, together with a strong commitment to include local partners and community groups. However, the ownership and ultimate control moves away from the local area, at least in terms of the leasehold. The Central Lincolnshire Green Infrastructure Trust model as proposed in Option 3B would require the establishment of a new organisation with cross authority and organisation cooperation to oversee the management of the open spaces. It also has the potential to build on the overall vision for GI in Central Lincolnshire as set out in the Green Infrastructure Study involving many of the local partners in the board of the Trust.

The main area of uncertainty for all the Trust variants however remains how to address the potential lack of sufficient funds from commuted payments and/or endowments to secure the interest of a Trust in the first place. All potential Trustees will need to be assured that a new Local Trust is financially viable in the medium to long term. Any shortfall in funding should be resolved before the planning applications for the first development sites are granted and associated planning obligations are signed off. There needs to be an understanding that any sites which fall under the responsibility of a Trust can be effectively managed in the long term under a secure financial model. However the scope for alternative additional funding should also be rigorously explored. It is recommended that:

- The Trust model is explored as a preferred option for the management of significant new open spaces that are to be provided through the growth agenda, particularly where there are no other agreed alternatives.
- That a Central Lincolnshire Green Infrastructure Trust is accepted as the most favourable way forward for the growth sites and other green infrastructure assets, subject to agreeing the legal basis and constitution of the Trust and the contribution and role of each partner.

- That a wide range of local partners are included within a Trust comprising representation from the public, private and voluntary sector.
- That consideration is given to Lincolnshire County Council taking the joint lead in establishing the Trust, with support from all the Councils within Central Lincolnshire.
- The Trust should be established at the earliest opportunity and play an active role to champion Green Infrastructure in the development of planning policy including the emerging Joint Core Strategy, other LDF documents and the Community Infrastructure Levy.
- The Trust should be fully involved in the negotiation of commuted sums with developers of planning applications that come forward where the sums would be transferred to a Trust. They should identify circumstances where additional contribution over and above the minimum levels set out in Planning Obligations strategies should apply. The Trust should also strongly promote the inclusion of property as part an endowment linked to a development to help fund future maintenance.
- That a Trust actively seeks additional sources of funding from a comprehensive range of sources for implementation and management of projects within its portfolio of sites.
- That the scope of the Trust includes existing and new sites required to deliver the objectives for GI provision established in the Green Infrastructure Study.

APPENDIX A7
GREEN INFRASTRUCTURE MANAGEMENT
AND GOVERNANCE CASE STUDIES

Green Infrastructure Management and Governance Case Studies

A range of case studies that showcase best practice from other parts of the country with regards to models for management and governance of new and improved GI assets are provided below.

LOCAL AUTHORITY MANAGEMENT MODEL

Case Study 1 - Bristol City Council¹⁶²

With one of the highest ratios of green space per head of population in the country, but one of the lowest spends, Bristol City Council created a Parks & Green Spaces Strategy based on highly detailed evidence to support robust decision-making about the prioritisation of land use and investment. The Strategy sets out an ambitious 20-year plan to ensure that people have access, close to where they live, to good-quality parks and green spaces of different types. It contains service management policies and a set of standards for quantity, quality and distance. Improvements required to bring all spaces across the city up to their 'good' standard was costed at £87 million in capital funding. A robust investment model was developed as part of the strategy to identify sources of funding for the different types of space and set out strategic priorities for investment. The need for increased revenue budgets for maintenance was also identified and Bristol has adopted a formula that allows a proportion of capital secured to be put into a maintenance fund. A five-year capital investment programme was drawn up and will be part of the strategy review in 2013. A key source of funding in Bristol is likely to be through section 106 contributions from developers. The evidence base provided by the green space strategy and the ambitious quality standard has allowed Bristol to increase its planning obligations for green spaces, ensuring that new development contributes to the creation of a high-quality network of green spaces across the city.

Case Study 2 – London Borough of Tower Hamlets¹⁶³

The London Borough of Tower Hamlets is one of the most densely populated and ethnically diverse parts of London. Open space in the borough has generally been over-stretched and of poor quality and there have been significant barriers to access. In light of this, Tower Hamlets adopted a 10-year Open Spaces Strategy (2006-2016) which set out some clear messages including that an ambitious standard for the quantity of open space would be established and existing open spaces would be upgraded in quality and accessibility to cope with demand. The Strategy has been hugely significant in moving open space up the political agenda and gaining over £5.5 million from the Council's capital programme, section 106 negotiations and Play Pathfinder funding. The capital budget for park improvements in 2008/09 was around £4 million, to include a new footbridge over the Regent's Canal linking two parks. Since the adoption of the Strategy, the majority of the parks assessed as poor quality have been upgraded and play provision has been improved.

PRIVATE MANAGEMENT COMPANY MODEL

Case Study 3 - Greenwich Millennium Village Management Limited, London¹⁶⁴

Greenwich Millennium Village is an award winning new neighbourhood in London that has delivered high sustainability and design standards across the development. The first of English Partnerships (now the Homes and Communities Agency) Millennium Communities, the project has transformed a former gas works into a thriving, twenty first century community grouped around a village green and newly created lake. An active Residents Association has been formed which is taking a keen interest in local management issues. The Greenwich Millennium Village Management Limited was set up to be responsible for the long-term management of the Village. This Company will ultimately be owned by the residents/owners and thus will determine the standards they require.

¹⁶² Information from <http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk> (Open Space Strategies: Best Practice Guidance, 2009, CABE Space)

¹⁶³ Information from <http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk> (Open Space Strategies: Best Practice Guidance, 2009, CABE Space)

¹⁶⁴ Information from <http://www.urbandesigncompendium.co.uk>

LAND TRUST MODELS

Case Study 4 - Bentley Community Woodland, Doncaster¹⁶⁵

The 93ha Bentley Community Woodland, created after the demise of the former Bentley Colliery, was one of the first sites taken on by the Land Trust in 2004 and is providing proof that a long term approach to management and community engagement can provide lasting benefit to the community. The Land Trust provided a sustainable and cost effective exit for the landowner, protects the money invested in restoring the land, and covers environmental liability associated with the site past history.

Case Study 5 - Warren House Park, South Yorkshire¹⁶⁶

Warren House Park is a 20ha venue for local recreation, created on the site of the Askern Coalite plant. Yorkshire Forward acquired the site and restored it using funding from English Partnerships National Coalfield Programme. In 2007, Yorkshire Forward transferred the ownership of the site to the Land Trust. Doncaster Metropolitan Borough Council, who has a long association with Warren House Park, was appointed as managing partner.

Case Study 6 - Beam Parklands, Dagenham¹⁶⁷

The Land Trust and partners have turned the 53ha Beam Parklands, a functional flood prevention area, into an innovative multi-use space that provides significant community benefits and is helping regenerate a deprived area. Alongside the Environment Agency's flood defence improvement works, the Land Trust secured funding from a number of sources to enhance the space and to sustainably manage it as an attractive multi-functional community asset. The project could not have happened without the Land Trust as the Parklands current owners London Borough Barking and Dagenham and the Environment Agency could not agree to the works because of the liabilities and increased cost that they would incur for maintaining the site. Both are transferring their land and associated liabilities on long term lease to the Land Trust. This effectively removes a financial liability from their books and ensures the Parklands can contribute to the uplift of the wider area. £1.5 million will be secured from the ERDF to deliver the capital scheme. The match funding, that is crucial to drawing down ERDF money, is to be provided through the EA activity to provide increased flood storage and riverside enhancements. Money for long term maintenance will be provided by an endowment that has been secured from the Homes and Communities Agency's Parklands allocation for the East London GreenGrid. The Parklands endowment of c.£1.9 million will ensure the long management of the site for community benefit. The Veolia Cleanaway Trust also provided £250,000 to improve access to the Parklands.

OTHER TRUST MODELS

Case Study 7 - Milton Keynes Parks Trust¹⁶⁸

The 1,800ha of parkland in Milton Keynes is managed by the Milton Keynes Parks Trust, set up specifically for this role. The Parks Trust is a company limited by guarantee and a registered charity, governed by Memorandum and Articles of Association requiring a Board of Directors (Trustees). The freehold of the parkland and parkways of Milton Keynes is held by the Council and the Trust enjoys a 999 year lease on that same land. When established in 1992, the Trust received an endowment (including commercial property within the town), which, although technically expendable, has been regarded as permanent and thereby retained and enhanced for its original purpose of sustaining an income stream. As a financially secure and independent organisation focused entirely on looking after the city's parks, the Parks Trust can take an innovative and forward-looking view of the area's green spaces. The Trust is a member of both the Local Environment Partnership and the Local Strategic Partnership. There are no friends groups as such but the Trust encourages community events and has a ranger team. There are now over 200 volunteers who patrol to help the park staff and report damage or encroachments, help organise events, undertake practical conservation work and some work with schools. Members of the Anglers Association stock the lakes and act as bailiffs, and the Natural History Society helps to undertake wildlife monitoring and surveys.

¹⁶⁵ Information from <http://www.thelandtrust.org.uk>

¹⁶⁶ Information from <http://www.thelandtrust.org.uk>

¹⁶⁷ Information from <http://www.thelandtrust.org.uk>

¹⁶⁸ <http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/case-studies> and <http://www.theparkstrust.com>

Case Study 8 - Torbay Coast and Countryside Trust, Devon¹⁶⁹

In 1998, Torbay Council established the Torbay Coast and Countryside Trust as an independent charitable trust to manage almost 500ha of its land under a 60-year lease. The Council subsequently leased more land to the Trust, which now manages some 700ha. Under this arrangement, the trust can access funding and support that the council cannot. The council is the trust's main landlord and the terms of the lease to the trust are a significant feature of the relationship between the two. In addition to the lease, a management agreement was created. This sets out more details of the relationship between the two organisations. Since the trust was set up, 22% of its annual revenue income has come from the management fee paid by the council, the balance coming from a range of sources including rents, grants, membership subscriptions, fundraising appeals and trading income. The trust has raised £6.2 million over 10 years for various capital and revenue projects from grants, legacies and charitable trusts. Events, too, are a good source of income.

Case Study 9 - Nene Park Trust, Peterborough¹⁷⁰

Nene Park, which runs for 10km along the valley of the River Nene, was conceived by the Peterborough Development Corporation, Peterborough City Council and Cambridgeshire County Council. The park, which opened in 1978, was designed as an accessible network of spaces and waterways, and a gateway to the countryside for the people of Peterborough. Today it includes a range of landscapes and facilities including golf courses, horse riding, hotels, pubs, cafes, a garden centre, farmland and a sculpture park. In 1988, the Nene Park Trust, a company limited by guarantee and a registered charity, was created to manage and protect the park in perpetuity. Peterborough Council gave the Trust a 999-year lease on the 660ha site and it was endowed with commercial property and other assets that would generate an income. The trust works closely with more than 25 organisations and businesses that manage land or facilities in the park. Its work is overseen by its board of trustees, which was set up to include representatives of local, national and regional organisations. The Trust spends more than £1.5 million a year looking after the park. This is entirely self-funded. Around £100,000 is generated by the Trust from commercial activities such as car parking and events; around £600,000 is income from leases and licences to cafes, pubs and hotels on the land; and around £800,000 comes from the endowment and investments.

Case Study 10 - Shenley Park Trust, Hertfordshire¹⁷¹

Shenley Park is a 45 acre park set within the grounds of a former hospital, comprising of orchard, meadow, woodland walks and an ornate landscaped walled garden with an amphitheatre. Following closure of the Hospital, the land was sold for housing development and part of the site was given to the Shenley Park Trust to develop, manage and maintain a 45 acre rural Park for the inhabitants of Shenley and neighbouring Parishes. An endowment provided for the development for the park, and for investment to generate an annual income for the Park. Together with the rental income from its properties, the Trust is self-financing and aims to remain this way for the remainder of its 150 year lease. The Shenley Park Trust is an example of an innovative way to develop and maintain public open space, as recognised in an award from the Institute of Landscape and Amenity Management in 2002.

Case Study 11 - Warley Woods Community Trust, Smethwick, West Midlands¹⁷²

Warley Woods is a 40ha urban park that was run by Birmingham City Council for most of the 20th century. However, by the late 1990s the site was in a poor condition and in 1997 local residents set up the Warley Woods Community Trust to support it. In 2004 the Trust took over the management of the site and has since raised nearly £2 million to invest in improvements. The Trust is a company limited by guarantee and a registered charity. It employs nine staff and has a membership of 800 people, many of whom volunteer on the site. The day-to-day management costs for the park come from: income from the golf course (57%); a service level agreement with Sandwell Council (23%); various fundraising activities (around 11%); and public donations and sponsorship (5%). Income is also generated from the sale of Warley Woods Christmas cards and a contract with an ice cream seller.

¹⁶⁹ Information from <http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk> (Community Led Spaces, 2010, CABE Space) and <http://www.countryside-trust.org.uk>

¹⁷⁰ Information from <http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk> (Community Led Spaces, 2010, CABE Space) and <http://www.neneparktrust.org.uk>

¹⁷¹ Information from <http://www.shenleypark.co.uk> and <http://www.urbed.com>

¹⁷² Information from <http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk> (Community Led Spaces, 2010, CABE Space) and <http://www.warleywoods.org.uk>



South East Office The Old Crown High Street Blackboys Uckfield East Sussex TN22 5JR T 01825 891071 F 01825 891075 E mail@cba.uk.net W www.cba.uk.net

London Office 1 Swan Court 9 Tanner Street London SE1 3LE T 020 7089 6480 F 020 7089 9260

Directors C J Blandford BA DiplLD MLA FLI • M E Antonia BSc EnvSci RSA DipPA • D Watkins BSc MSc AMIEnvSci

Chris Blandford Associates is the trading name of Chris Blandford Associates Ltd Registered in England No 3741865. Registered Office: The Old Crown High Street Blackboys East Sussex TN22 5JR