

## **APPENDIX A1 RECORD OF DATASETS USED**

Dataset	Data Source/Supplier	Owner
VOLUME 1		
<b>Figure 1.1a Central Lincolnshire - Location and Context</b>		
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
District Boundaries	OS Open Data	www.ordnancesurvey.co.uk/opendata
County Boundaries	OS Open Data	www.ordnancesurvey.co.uk/opendata
Regional Boundaries	OS Open Data	www.ordnancesurvey.co.uk/opendata
<b>Figure 1.1b Study Areas</b>		
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
Sub-Area Boundaries	Indicative boundaries created by Chris Blandford Associates	Chris Blandford Associates
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Main Rivers and Canals	Environment Agency	Environment Agency
1:250000 Raster Map	OS Open Data	www.ordnancesurvey.co.uk/opendata
<b>Figure 1.3 Existing Green Infrastructure Assets</b>		
Strategic Greenspace	Indicative boundaries created by CBA based on Open Space, Sports and Recreation datasets	Chris Blandford Associates
Accessible Natural Greenspace >2ha	Created by Chris Blandford Associates. Accessible natural greenspace sites > 2ha from the following datasets have been switched on: accessible woodland, country parks, CROW Act 2000 access land, local nature reserves.	Chris Blandford Associates
Historic Environment Assets	created by CBA based on Volume 2 Figure 2.8	Chris Blandford Associates
Historic Parks and Gardens	English Heritage, West Lindsey DC	English Heritage, West Lindsey DC
Indicative Floodplain	Environment Agency	Environment Agency
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 1.4 Green Infrastructure Network Concept Plan</b>		
Strategic Green Corridors	Indicative boundaries created by Chris Blandford Associates	Chris Blandford Associates
Strategic Green Access Links	Indicative boundaries created by Chris Blandford Associates	Chris Blandford Associates
Urban Green Grids	Based on DLUA boundaries - OS Open Data	www.ordnancesurvey.co.uk/opendata
Local Green Links (1.4b, 1.4c & 1.4d)	Indicative boundaries created by Chris Blandford Associates	Chris Blandford Associates
Potential Directions of Growth (1.4b, 1.4c & 1.4d)	CLJPU	CLJPU
Existing Strategic Greenspace	Indicative boundaries created by CBA based on Open Space, Sports and Recreation datasets	Chris Blandford Associates

<b>Dataset</b>	<b>Data Source/Supplier</b>	<b>Owner</b>
Existing Accessible Natural Greenspace >2ha (1.4b, 1.4c & 1.4d)	Created by Chris Blandford Associates. Accessible natural greenspace sites > 2ha from the following datasets have been switched on: accessible woodland, country parks, CRoW Act 2000 access land, local nature reserves.	Chris Blandford Associates
Proposed Areas of Search for New Accessible Natural Greenspace (1.4b, 1.4c & 1.4d)	Indicative boundaries created by Chris Blandford Associates	Chris Blandford Associates
Main Watercourses (1.4b, 1.4c & 1.4d)	Environment Agency	Environment Agency
District Boundaries (1.4b, 1.4c & 1.4d)	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Green Infrastructure Zones (1.4a)	Boundaries created by Chris Blandford Associates	Chris Blandford Associates
Central Lincolnshire Study Area Boundary (1.4a)	CLJPU	CLJPU
<b>Figure 1.5 Strategic Green Infrastructure Initiatives &amp; Projects</b>		
Strategic Green Infrastructure Initiatives & Projects (all except Central Lincolnshire Waterways Initiative, Coversand Heathlands Initiative and Lincolnshire Wolds AONB Management Plan Initiatives)	Lincolnshire Biodiversity Partnership	Charlie Barnes Biodiversity Services Officer Charlie.barnes@lincsbiobiodiversity.org.uk
Coversand Heathlands Initiative	Boundary created by Chris Blandford Associates (based on boundary shown on <a href="http://www.lincsbiobiodiversity.org.uk/projects_intro.php">http://www.lincsbiobiodiversity.org.uk/projects_intro.php</a> )	Chris Blandford Associates
Lincolnshire Wolds AONB Management Plan Initiatives	Natural England	Downloaded from the Natural England website
Central Lincolnshire Waterways Initiative	Created by CBA based on navigable waterways from the Environment Agency	Chris Blandford Associates
Strategic Green Access Links/Greenways Network Initiative	Indicative boundaries created by Chris Blandford Associates	Chris Blandford Associates
Urban Green Grids	Based on DLUA boundaries - OS Open Data	<a href="http://www.ordnancesurvey.co.uk/opendata">www.ordnancesurvey.co.uk/opendata</a>
Strategic Green Access Links	Indicative boundaries created by Chris Blandford Associates	Chris Blandford Associates
Strategic Green Corridors	Indicative boundaries created by Chris Blandford Associates	Chris Blandford Associates
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU

Dataset	Data Source/Supplier	Owner
VOLUME 2		
<b>Figure 1.1 Study Area and Context</b>		
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
Sub-Area Boundaries	Indicative boundaries created by Chris Blandford Associates	Chris Blandford Associates
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Main Rivers and Canals	Environment Agency	Environment Agency
1:250000 Raster Map	OS Open Data	www.ordnancesurvey.co.uk/opendata
<b>Figure 2.1 Ecosystem Services</b>		
Indicative Floodplain	Environment Agency	Environment Agency
Agricultural Land Classification	Natural England	Downloaded from the Natural England website
Air Quality Data	CLJPU	Environment Agency
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:250000 Raster Map	OS Open Data	www.ordnancesurvey.co.uk/opendata
<b>Figure 2.2 UK BAP Habitats</b>		
UK BAP Habitats	Natural England	Downloaded from the Natural England website
National Forest Inventory	Forestry Commission	Forestry Commission
Ancient Woodland	Natural England	Downloaded from the Natural England website
Main Rivers and Canals	Environment Agency	Environment Agency
Main Drains	CLJPU	Internal Drainage Boards
Waterbodies	Ordnance Survey	www.ordnancesurvey.co.uk/opendata
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 2.3 Biodiversity and Geological Conservation Designations</b>		
Sites of Special Scientific Interest	Natural England	Downloaded from the Natural England website
Ramsar	Natural England	Downloaded from the Natural England website
Special Areas of Conservation	Natural England	Downloaded from the Natural England website
Special Protection Areas	Natural England	Downloaded from the Natural England website
National Nature Reserves	Natural England	Downloaded from the Natural England website
Local Nature Reserves	Natural England	Downloaded from the Natural England website
Local Wildlife Sites and Sites of Nature Conservation Importance	Lincolnshire Biodiversity Partnership	Charlie Barnes Biodiversity Services Officer Charlie.barnes@lincs-biodiversity.org.uk
Lincolnshire Wildlife Trust Reserves	Lincolnshire Biodiversity Partnership	Charlie Barnes Biodiversity Services Officer Charlie.barnes@lincs-biodiversity.org.uk
Lincolnshire Wildlife Trust Roadside Nature Reserves	Lincolnshire Biodiversity Partnership	Charlie Barnes Biodiversity Services Officer



<b>Dataset</b>	<b>Data Source/Supplier</b>	<b>Owner</b>
Royal Society for the Protection of Birds Reserves	CLJPU	RSPB
Regionally Important Geological and Geomorphological Sites	Lincolnshire Biodiversity Partnership	Charlie Barnes Biodiversity Services Officer Charlie.barnes@lincs-biodiversity.org.uk
Local Geological Sites	Lincolnshire Biodiversity Partnership	Charlie Barnes Biodiversity Services Officer Charlie.barnes@lincs-biodiversity.org.uk
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 2.4 Topography</b>		
Topography	CLJPU	Ordnance Survey
Main Rivers and Canals	Environment Agency	Environment Agency
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
<b>Figure 2.5 Landscape Character</b>		
East Midlands Regional Landscape Character Types	CLJPU	Natural England
Lincolnshire Wolds Area of Outstanding Natural Beauty	Natural England	Downloaded from the Natural England website
Green Wedges	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Settlement Breaks	CLJPU	West Lindsey DC
Areas of Great Landscape Value	CLJPU	West Lindsey DC
Visual Amenity Areas	CLJPU	North Kesteven DC
Lincoln Cliff Area of Distinctive Landscape Character	CLJPU	North Kesteven DC
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 2.6 Local Landscape Character: West Lindsey</b>		
Broad Landscape Character Areas and Sub-Areas	CLJPU	West Lindsey DC
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 2.7 Local Landscape Character: North Kesteven</b>		
Landscape Character Types and Sub-Areas	CLJPU	North Kesteven DC
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 2.8 Townscape Character Areas</b>		
Townscape Character Areas	City of Lincoln Council	City of Lincoln Council
Lincoln Growth Point Character Areas	City of Lincoln Council	City of Lincoln Council
Green Wedges	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council

Dataset	Data Source/Supplier	Owner
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
1:10000 Raster Map	CLJPU	CLJPU/Ordnance Survey
<b>Figure 2.9 Historic Landscape Character</b>		
Age of Fields	CLJPU	LCC (Central Lincolnshire Historic Landscape Characterisation)
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 2.10 Historic Environment Assets</b>		
Listed Buildings	English Heritage	Downloaded from the English Heritage website
Scheduled Monuments	English Heritage	Downloaded from the English Heritage website
Conservation Areas	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Registered Parks and Gardens of National Historic Interest	English Heritage	Downloaded from the English Heritage website
Parks and Gardens of Local Interest	CLJPU	West Lindsey DC
Fosdyke Canal	Ordnance Survey	<a href="http://www.ordnancesurvey.co.uk/opendata">www.ordnancesurvey.co.uk/opendata</a>
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	CLJPU/Ordnance Survey
<b>Figure 2.11 Open Space, Sport and Recreation Typology</b>		
Open Space, Sport and Recreation Typology	Various (see Volume 2: Appendix A7)	Various (see Volume 2: Appendix A7)
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 2.12 Access Network</b>		
Public Rights of Way	CLJPU	LCC
Permissive Access Links	CLJPU	LCC
National Cycle Routes	CLJPU	Sustrans
Local and Regional Cycle Routes	CLJPU	LCC
Navigable Waterways	Environment Agency	Environment Agency
Railways	Ordnance Survey	<a href="http://www.ordnancesurvey.co.uk/opendata">www.ordnancesurvey.co.uk/opendata</a>
Rail Stations	Ordnance Survey	<a href="http://www.ordnancesurvey.co.uk/opendata">www.ordnancesurvey.co.uk/opendata</a>
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 2.13 Access Network: Promoted Walks</b>		
Promoted Routes	CLJPU	LCC
Spires and Steeples Route	Indicative boundaries created by Chris Blandford Associates	Chris Blandford Associates

<b>Dataset</b>	<b>Data Source/Supplier</b>	<b>Owner</b>
Viking Way	CLJPU based on OS mapbase	CLJPU
District Boundaries	CLJPU	West Lindsey DC, North kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 2.14 Strategic Greenspace Typology</b>		
Strategic Greenspace	Indicative boundaries created by CBA based on Open Space, Sports and Recreation datasets	Chris Blandford Associates
District Boundaries	CLJPU	West Lindsey DC, North kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	CLJPU/Ordnance Survey
<b>Figure 2.15 Strategic Greenspace</b>		
Strategic Greenspace	Indicative boundaries created by CBA based on Open Space, Sports and Recreation datasets	Chris Blandford Associates
District Boundaries	CLJPU	West Lindsey DC, North kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 2.16 Existing Strategic Green Infrastructure Initiatives</b>		
Strategic Green Infrastructure Initiatives (all except Coversand Heathlands and Lincolnshire Wolds AONB )	Lincolnshire Biodiversity Partnership	Charlie Barnes Biodiversity Services Officer Charlie.barnes@lincs-biodiversity.org.uk
Coversand Heathlands	Boundary created by Chris Blandford Associates (based on boundary shown on <a href="http://www.lincs-biodiversity.org.uk/projects_intro.php">http://www.lincs-biodiversity.org.uk/projects_intro.php</a> )	Chris Blandford Associates
Lincolnshire Wolds AONB	Natural England	Downloaded from the Natural England website
District Boundaries	CLJPU	West Lindsey DC, North kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 2.17 Population Density</b>		
Population Density	Mapped by Chris Blandford Associates using data from LCC/ONS	Chris Blandford Associates
District Boundaries	CLJPU	West Lindsey DC, North kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 2.18 Multiple Index of Deprivation</b>		
Indices of Multiple Deprivation	Mapped by Chris Blandford Associates using data from LCC/ONS	Chris Blandford Associates

Dataset	Data Source/Supplier	Owner
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 2.19 Potential Directions of Growth</b>		
Potential Directions of Growth	CLJPU	CLJPU
Urban Extensions Previously Proposed	CLJPU	CLJPU
Other Potential Growth Locations	CLJPU	CLJPU
Main Rivers and Canals	Environment Agency	Environment Agency
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
Sub-Area Boundaries	Indicative boundaries created by Chris Blandford Associates	Chris Blandford Associates
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 3.1 Neighbourhood Scale Accessible Natural Greenspace (&gt;2ha - 300m Catchment)</b>		
300m catchment - all accessible natural greenspace >2ha	Boundaries created by Chris Blandford Associates	Chris Blandford Associates
Accessible Natural Greenspace >2ha	Created by Chris Blandford Associates. Accessible natural greenspace sites > 2ha from the following datasets have been switched on: accessible woodland, country parks, CROW Act 2000 access land, local nature reserves.	Chris Blandford Associates
Settlements	Ordnance Survey	<a href="http://www.ordnancesurvey.co.uk/opendata">www.ordnancesurvey.co.uk/opendata</a>
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 3.2 District Scale Accessible Natural Greenspace (&gt;20ha - 2km Catchment)</b>		
2km catchment - accessible natural greenspace >20ha	Boundaries created by Chris Blandford Associates	Chris Blandford Associates
Accessible Natural Greenspace >2ha	Created by Chris Blandford Associates. Accessible natural greenspace sites > 2ha from the following datasets have been switched on: accessible woodland, country parks, CROW Act 2000 access land, local nature reserves.	Chris Blandford Associates
Settlements	Ordnance Survey	<a href="http://www.ordnancesurvey.co.uk/opendata">www.ordnancesurvey.co.uk/opendata</a>
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey

Dataset	Data Source/Supplier	Owner
<b>Figure 3.3 County Scale Accessible Natural Greenspace (&gt;100ha - 5km Catchment)</b>		
5km catchment - accessible natural greenspace >100ha	Boundaries created by Chris Blandford Associates	Chris Blandford Associates
Accessible Natural Greenspace >2ha	Created by Chris Blandford Associates. Accessible natural greenspace sites > 2ha from the following datasets have been switched on: accessible woodland, country parks, CRoW Act 2000 access land, local nature reserves.	Chris Blandford Associates
Settlements	Ordnance Survey	www.ordnancesurvey.co.uk/opendata
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 3.4 Sub-Regional Scale Accessible Natural Greenspace (&gt;500ha - 10km Catchment)</b>		
10km catchment - accessible natural greenspace >500ha	Boundaries created by Chris Blandford Associates	Chris Blandford Associates
Accessible Natural Greenspace >2ha	Created by Chris Blandford Associates. Accessible natural greenspace sites > 2ha from the following datasets have been switched on: accessible woodland, country parks, CRoW Act 2000 access land, local nature reserves.	Chris Blandford Associates
Settlements	Ordnance Survey	www.ordnancesurvey.co.uk/opendata
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 3.5 Higher Level Environmental Stewardship Target Areas</b>		
Higher Level Environmental Stewardship Target Areas	CLJPU	CLJPU/Natural England
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
1:50000 Raster Map	CLJPU	Ordnance Survey
<b>Figure 3.6 Green Infrastructure Public Benefit Mapping</b>		
Potential for Combined Multiple Public Benefits	As per map 31c of the Green Infrastructure for the East Midlands - A Public Benefit Mapping Project, East Midlands Regional Assembly, 2006	N/A
District Boundaries	CLJPU	West Lindsey DC, North Kesteven DC, City of Lincoln Council
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
<b>Figure 4.1 Green Infrastructure Zones</b>		
Green Infrastructure Zones	Boundaries created by Chris Blandford Associates	Chris Blandford Associates

<b>Dataset</b>	<b>Data Source/Supplier</b>	<b>Owner</b>
Central Lincolnshire Study Area Boundary	CLJPU	CLJPU
Sub-Area Boundaries	Indicative boundaries created by Chris Blandford Associates	Chris Blandford Associates
1:50000 Raster Map	CLJPU	Ordnance Survey

## **APPENDIX A2**

### **LIST OF STAKEHOLDERS**

The Central Lincolnshire Green Infrastructure Study was informed by wide consultation with over 100 local stakeholders – see list below.

Organistaion	Contact Name	Job Title/Responsibility
<b>Central Lincolnshire Green Infrastructure</b>		
<b>Sub Group</b>		
Lincolnshire County Council	Alan Freeman	Head of Planning, Lincolnshire County Council
North Kesteven District Council	Alan Gray	Economic Development Manager
North Kesteven District Council	Mike Lock	Client Officer (Recreation)
North Kesteven District Council based	Sarah Attrill	Witham Valley Country Park Project Officer
West Lindsey District Council	Carol Slingsby	Environment Officer (Green Infrastructure)
Natural England	Ryan Bavin	Conservation & Planning Adviser, Land Use Operations Team - Midlands
Lincolnshire Wildlife Trust	Caroline Steel	Head of Conservation, Lincolnshire Wildlife Trust
Lincolnshire County Council	Martin Hollingsworth	Senior Highways Officer, Greater Lincoln & Gainsborough Division, Highways & Traffic Dept
Lincolnshire County Council	Jodie Davis	Climate Adaptation Project Officer
Joint Planning Unit	Michael Braithwaite	Head of Central Lincolnshire Joint Planning Unit
Lincolnshire Sports Partnership	David Carter	Facilities Project Manager, Lincolnshire Sports Partnership
Environment Agency	Andy Bailey	Planning and Corporate Services Technical Specialist
City of Lincoln Council	Gill Wilson	Chair of Group & GI Study Project Manager & Team Leader ,Development Planning
Joint Planning Unit	Brooke Smith	GI Study Project Manager, & Policy Planning Officer, CL Joint Planning Unit
<b>Central Lincolnshire GI Study Project Management Group</b>		
Lincolnshire County Council	Brendan Gallagher	Principal Planning Officer, Strategic Planning (Infrastructure Delivery Plan)
Joint Planning Unit	Luke Fleming	Team Leader, CL Joint Planning Unit
Joint Planning Unit	Sarah Rayney	GIS Technical Advisor, CL Joint Planning Unit
Lincolnshire Research Observatory, Lincs County Council	Katherine Mills	Principal Development Officer, Research and Information Team, LRO
	Fran Hitchinson	Biodiversity Services Manager, Lincolnshire Biodiversity Partnership
<b>Lincolnshire Biodiversity Partnership</b>		
<b>Lincolnshire Sports Partnership</b>		
	Janet Inman	Chief Executive, Lincolnshire Sports Partnership
<b>Lincolnshire Children's and Young People's Strategic Partnership</b>		
Lincolnshire County Council	Debbie Barnes	
Children's Links	Karen Wilkinson	
<b>Lincolnshire Primary Care Trust Health Board</b>		
Lincolnshire PCT	Teresa Roche	
Lincolnshire PCT	Ann Ellis	
<b>Lincolnshire Wolds AONB - Countryside Service and Joint Advisory Committee</b>		
Lincolnshire County Council	Steve Jack	Lincolnshire Wolds Countryside Service Manager
Lincolnshire County Council	Helen Gamble	Lincolnshire Wolds officer
<b>Lincolnshire FWAG</b>		
FWAG	Louise Chairman	FWAG Officer
FWAG	Barney Parker	FWAG Officer
<b>Lincolnshire Access Forums and Public Rights of Way Improvement Plans</b>		
Lincolnshire County Council	Andrew Savage	Senior Countryside Access Officer
Lincolnshire County Council	The Manager	general County Countryside Access in box
Lincolnshire County Council	Chris Miller	Countryside Access Manager & Principal Access Officer
<b>Lincolnshire Historic Characterisation Assessment Project</b>		
Lincolnshire County Council	Mark Bennet	Historic Environment Officer
<b>Lincolnshire County Historic Environment Record</b>		
Lincolnshire County Council	Beryl Lott	Historic Environment Manager
<b>Historic Lincoln Partnership</b>		
Lincolnshire County Council	Penney Francis	Historic Lincoln Project Officer, Economy and Culture Div



Organistaion	Contact Name	Job Title/Responsibility
Lincolnshire County Council	Mary Powell	Historic Lincoln Project Officer, Economy and Culture Div
<b>Heritage Trust of Lincolnshire/ Heritage Lincolnshire</b>		
Heritage Lincolnshire	David Start	Director of Heritage Lincolnshire
<b>Trent Vale Landscape Partnership</b>		
Trent Vale Landscape Partnership	Virginia Green	Project Manager, Trent Vale Landscape Partnership
Trent Vale Landscape Partnership	Hester Kapur	Project Officer, Trent Vale Landscape Partnership
<b>Lincolnshire Limewoods Project</b>		
Lincolnshire County Council, Environmental Management Lincolnshire County Council	Liz Fleuty The Manager	Lincolnshire Limewoods Project Officer general Limewoods in box
<b>Third Sector Partnership</b>		
Lincolnshire County Council	Diane Hansen	Strategic Partnership Officer, County LSP
Lincolnshire County Council	Alison Christie	Strategic Partnership Officer, County LSP
<b>Lincolnshire Waterways Partnership</b>		
Lincolnshire County Council	Andy Jee	Economic Regeneration officer
Environment Agency	Erin Vos	Fens Waterways Link Project officer
British Waterways	Tony Harvey	
<b>Lincolnshire Flood Risk Management Group</b>		
City of Lincoln	Toby Forbes-Turner	Principal Planning Liaison Officer, City of Lincoln; and Flood Risk Group Officer
<b>Forestry Commission</b>		
Forestry Commission	David White	Forestry Commission Officer
<b>Local Authorities</b>		
Lincolnshire County Council	Adrian Winkley	
Lincolnshire County Council	Penny Baker	
Lincolnshire County Council	Kate Percival	
Lincolnshire County Council	Jon Watson	Environment Team Leader
Lincolnshire County Council	Sean Kent	
Lincolnshire County Council	Doug Robinson	Sustainability and Climate Change Team Leader
Lincolnshire County Council	Karen Dennis	
Lincolnshire County Council	Andy Roberts	
Lincolnshire County Council	Kim Hudson	
Central Lincolnshire Joint Planning Unit	Charlotte Robinson	Principal Planning Officer, CL Joint Planning Unit
Central Lincolnshire Joint Planning Unit	Suzanne Roberts	Principal Planning Officer, CL Joint Planning Unit (infrastructure)
North Kesteven District Council	Andrew McDonough	Development Control Manager, NKDC
North Kesteven District Council	Jane Wells	Head of Planning, Economic and Cultural Services, NKDC
North Kesteven District Council	Sue Chambers	Parish Partnerships Officer, NKDC
North Kesteven District Council - LSP	Luisa McIntosh	Community Partnerships Manager, Partnership NK
West Lindsey District Council	Rob Lawton	
West Lindsey District Council	Mark Sturgess	Planning and Development Services Manager, WLDC
West Lindsey District Council	Anna Grieve	
West Lindsey District Council	Helen Reek	
City of Lincoln Council - City LSP	Jenny Chapman	
City of Lincoln Council	Adam Partington	Townscape Character Projects Manager, City of Lincoln
City of Lincoln Council	Arthur Ward	
City of Lincoln Council	Steve Bird	
City of Lincoln Council	Steve Lockwood	
City of Lincoln Council	Kate Bell	
City of Lincoln Council	Pete Boswell	Head of Planning, City of Lincoln Council
City of Lincoln Council, Economic	Mike Roberts	Head of Economic Sustainability and Tourism, City of Lincoln Council
	Paul Seddon	Development Service Manager
City of Lincoln Council, Directorate of Development and Environmental Services		
<b>Other Local Organisations, Partners, Partnerships</b>		
Sport England	Tony Aitchison	Planning Manager, Sport England
Sport England	Graham Beaumont	
Environment Agency	Phil Smith	
Environment Agency , Lincoln office	Annette Hewitson	Principal Planning Officer,EA
Environment Agency , National Environmental Assessment Service, Leeds office	Alison Baker	Senior Landscape Architect, National Environmental Assessment Service, EA
Natural England	James Marshall	West Lincolnshire Team Leader, Natural England
Waste Recycling Group	The manager	

Organistaion	Contact Name	Job Title/Responsibility
Whisby Nature Park Board	Janet Mellor	
Allotment Representative	Geoff Tann	
Upper Witham IDB	K.J. Pratt or M.J. Tomlinson	
Witham Third IDB	R Dewey or C Elkington	
Witham First IDB	M Lawson or C Elkington	
Lincolnshire Enterprise (NOW ABOLISHED)	Andrew Thurston	
Healthy Walks Initiative - CoLC	Natalie Fenwick	
National Farmers Union	Paul Tame	NFU Officer
Groundwork Lincolnshire	Keith Bourne	Chief Officer Groundwork Lincolnshire
Lincolnshire Ramblers	Mary Glen	
Hill Holt Wood	Nigel Lowthrop	Manager, Hill Holt Wood
Sustrans	Nicola Jones	Sustrans Officer Lincoln
Cycle Lincs	Sylvia Turner	
Woodland Trust	Andrew Sharkey	
Woodland Trust	Peter Lowe	
Woodland Trust	Gillgordon Stables	
Lincolnshire Wildlife Trust	Dave Bromwich	
Lincolnshire Wildlife Trust	Phil Porter	
Life on the Verge	Mark Schofield	Life on the Verge Project Officer, Lincs Wildlife Trust
Lincoln Community Development Partnership	Jeanne Bain	
British Waterways	Ian Dickinson	Area Planner (East Midlands)
English Heritage, East Midlands Region	Anne Plackett	Regional Planner (East Midlands)
Greater Lincolnshire Local Enterprise Partnership - LEP	Ruth Carver	LEP Support Officer

## **APPENDIX A3 STAKEHOLDER WORKSHOP REPORT**

## INTRODUCTION

Chris Blandford Associates (CBA) have been commissioned by The Central Lincolnshire Joint Planning Unit (CLJPU) to produce a Green Infrastructure Study for Central Lincolnshire (covering West Lindsey, City of Lincoln and North Kesteven areas). This Green Infrastructure Study will provide evidence to inform the Central Lincolnshire Core Strategy. The Study involves the production of Audit, Assessment and Strategy stages, related to the provision of Green Infrastructure in Central Lincolnshire.

## OBJECTIVES OF THE WORKSHOP

The purpose of the workshop was to provide an opportunity for CBA to brief stakeholders on the Green Infrastructure Study and progress made to date, as well as engage stakeholders in consideration & review of the initial Green Infrastructure audit /evidence gathered and identify initial local provision priorities.

## WORKSHOP FORMAT

### Date

9<sup>th</sup> June 2011

### Venue

Epic Centre, Lincoln, LN2 2NA

### Participants

A range of organisations and individual were invited to the workshop, with the aim being to draw together knowledge and information on a wide range of GI functions and places within the Study Area. A list of attendees is provided under **Item 1**.

### Role of CBA and CLJPU

The workshop format was developed by CBA and agreed with the CLJPU. The event was chaired by the CLJPU and activities led by CBA. Group discussions were facilitated jointly between the CLJPU and CBA.

### Agenda

The workshop agenda is included under **Item 2**. Following a short introduction, CBA presented information on the purpose/objectives/process and outputs of the Study, reviewed the evidence gathered to date/mapping undertaken of green infrastructure assets and explained the purpose and format of the carousel and brainstorm exercises. The presentation is included as **Item 3**.

The purpose of the carousel exercise was for stakeholders to review the green infrastructure data/mapping and identify gaps in relation to seven themes: ecosystems services, biodiversity, landscape and townscape, historic environment, access and recreation, strategic green infrastructure and existing green infrastructure initiatives.

The purpose of the brainstorm groups exercise was for stakeholders to discuss and map need and opportunities in relation to five green infrastructure functions: wildlife habitat provision; landscape/townscape setting and historic environment; sustainable access, recreation and movement; sustainable local energy and food production; and sustainable resource management and climate change adaption.

Each group then reported key needs/opportunities during a feedback session which was followed by a short presentation on next steps. Notes from the carousel exercise and the brainstorm groups exercise are provided under **Item 4** and **Item 5** respectively. Information gained from the workshop was used to help develop the Green Infrastructure Study as a whole and particularly the Stage 1 and Stage 2 work. Mr Watson (Environmental Team Leader at Lincolnshire County Council), who was unable to attend the workshop, provided feedback via email - his feedback is included under **Item 6**.

## Item 1 List of Attendees

Name	Organisation	Job Title
Ian Dickinson	British Waterways	Area Planner
Dominic Watkins	Chris Blandford Associates	Director
Chloé Cova	Chris Blandford Associates	Senior Environmental Planner
Gill Wilson	City of Lincoln Council	Development Planner
Mike Roberts	City of Lincoln Council	Head of Economic, Sustainability and Tourism
Steve Bird	City of Lincoln Council	
Toby Forbes-Turner	City of Lincoln Council	Principal Planning officer
Pete Boswell	City of Lincoln Council	
Emma Morrish	Environment Agency	Senior Environmental Project Manager
Karmen Kalchev	Environment Agency	Flood Risk Manager
Andy Bailey	Environment Agency	Planning and Corporate Services Technical Specialist
Keith Bourne	Groundwork	Chief officer
Brooke Smith	Joint Planning Unit	Policy Planning Officer
Michael Braithwaite	Joint Planning Unit	Head of JPU
Sarah Rayney	Joint Planning Unit	GIS Technical Advisor, CL Joint Planning Unit
Liz Fleuty	Lincolnshire County Council	Lincolnshire Limewoods Project Officer
Alan Freeman	Lincolnshire County Council	Head of Planning
Andy Savage	Lincolnshire County Council	Senior Countryside Access Officer
Brendan Gallagher	Lincolnshire County Council	Principal Planning officer
Douglas Robinson	Lincolnshire County Council	Sustainability and Climate change team leader
Martin Hollingsworth	Lincolnshire County Council	Senior Highways Officer
Steve Jack	Lincolnshire County Council	Lincolnshire Wolds Countryside Service Manager
David Carter	Lincolnshire Sports Partnership	Facilities Project Manager
Janet Wellor	Lincolnshire Wildlife Trust	
Caroline Steel	Lincolnshire Wildlife Trust	Head of Conservation
Alan Gray	North Kesteven District Council	Economic Development Manager
Lusia McIntosh	North Kesteven District Council	Community Partnerships Manager, Partnership NK
Sue Chambers	North Kesteven District Council	Parish Partnership Officer
Sarah Attrill	North Kesteven District Council based	Witham Valley Country Park Project Officer
Trevor Marsh	Sustrans - Lincoln	Sustrans officer
Carol Slingsby	West Lindsey District Council	Environment Officer (green Infrastructure)
Rob Lawton	West Lindsey District Council	Environment, policy and Information Team Leader

CHRIS BLANDFORD ASSOCIATES  
environment landscape planning



## CENTRAL LINCOLNSHIRE GREEN INFRASTRUCTURE STUDY

Stakeholder Workshop, 9<sup>th</sup> June 2011  
The EPIC Centre, Lincoln

### Agenda

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12.30 – 12.35	<b>Welcome &amp; Introduction</b>
12.35 – 13.00	<b>Setting the Scene : CBA Presentation</b>
<hr/>	
13.00 – 14.15	<b>Green Infrastructure Audit Validation : Carousel Exercise</b> Review of GI data/mapping and identification of gaps in relation to the following themes: <ul style="list-style-type: none"><li>• Ecosystem Services</li><li>• Biodiversity</li><li>• Landscape and Townscape</li><li>• Historic Environment</li><li>• Access and Recreation</li><li>• Strategic Green Infrastructure</li><li>• Existing Green Infrastructure Initiatives</li></ul>
<hr/>	
14.15 – 14.30	<b>Refreshment Break</b>
<hr/>	
14.30 – 16.00	<b>Green Infrastructure Needs &amp; Opportunities : Brainstorm Groups Exercise</b> Mapping of needs and opportunities in relation to the following GI functions: <ul style="list-style-type: none"><li>• Wildlife Habitat Provision</li><li>• Landscape/Townscape Setting and Historic Environment</li><li>• Sustainable Access, Recreation and Movement</li><li>• Sustainable Local Energy and Food Production</li><li>• Sustainable Resource Management and Climate Change Adaption</li></ul>
16.00 – 16.25	<b>Feedback Session</b>
<hr/>	
16.25 – 16.30	<b>Next Steps</b>
16.30	<b>Thanks &amp; Close</b>

## CENTRAL LINCOLNSHIRE GREEN INFRASTRUCTURE STUDY



Stakeholder Workshop – 9th June 2011

CHRIS BLANDFORD ASSOCIATES  
environment landscape planning



### WORKSHOP AGENDA

12.30 - 12.35 Welcome and Introduction

12.35 - 13.00 Setting the Scene: CBA Presentation

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**13.00 - 14.15 Green Infrastructure Audit Validation:  
Carousel Exercise**

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14.15 - 14.30 Refreshment Break

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**14.30 - 16.00 Green Infrastructure Needs & Opportunities:  
Brainstorm Groups Exercise**

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16.00 - 16.25 Feedback Session

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16.25 - 16.30 Next Steps

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16.30 Thanks & Close



## WHAT IS GREEN INFRASTRUCTURE?

- Network of multi-functional green spaces
- New and existing
- Rural and urban contexts
- Supports natural and ecological processes
- Integral to health/quality of life for sustainable communities



## MULTI-FUNCTIONALITY & DELIVERING BENEFITS

- 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





## STUDY PURPOSE

- 15-20 year strategic framework
- Guide GI investment to support future growth
- Evidence base to inform Central Lincolnshire Joint Core Strategy
- Test viability of delivering Eco-town green infrastructure standards



## STUDY OBJECTIVES

- Audit of GI assets
- Identify strategic GI typology
- Assess GI needs and opportunities
- Develop multi-functional GI Network
- Prepare GI delivery framework - projects, funding, standards & action plan
- Engage local stakeholders



**KEY**

- Central Lincolnshire Study Area Boundary
- Study Area Boundaries

**FIGURE 1.1**  
Study Area and Context

**FIGURE 1.1**  
Study Area and Context

## STUDY PROCESS

### STAGE 1 - AUDIT

- Existing GI data collection/mapping
- GIS data capture
- Stakeholder workshop

### STAGE 2 - ASSESSMENT

- Zonal approach
- Needs and opportunities by GI functions
- Stakeholder consultation

### STAGE 3 - STRATEGY

- Vision for green infrastructure
- Delivery framework

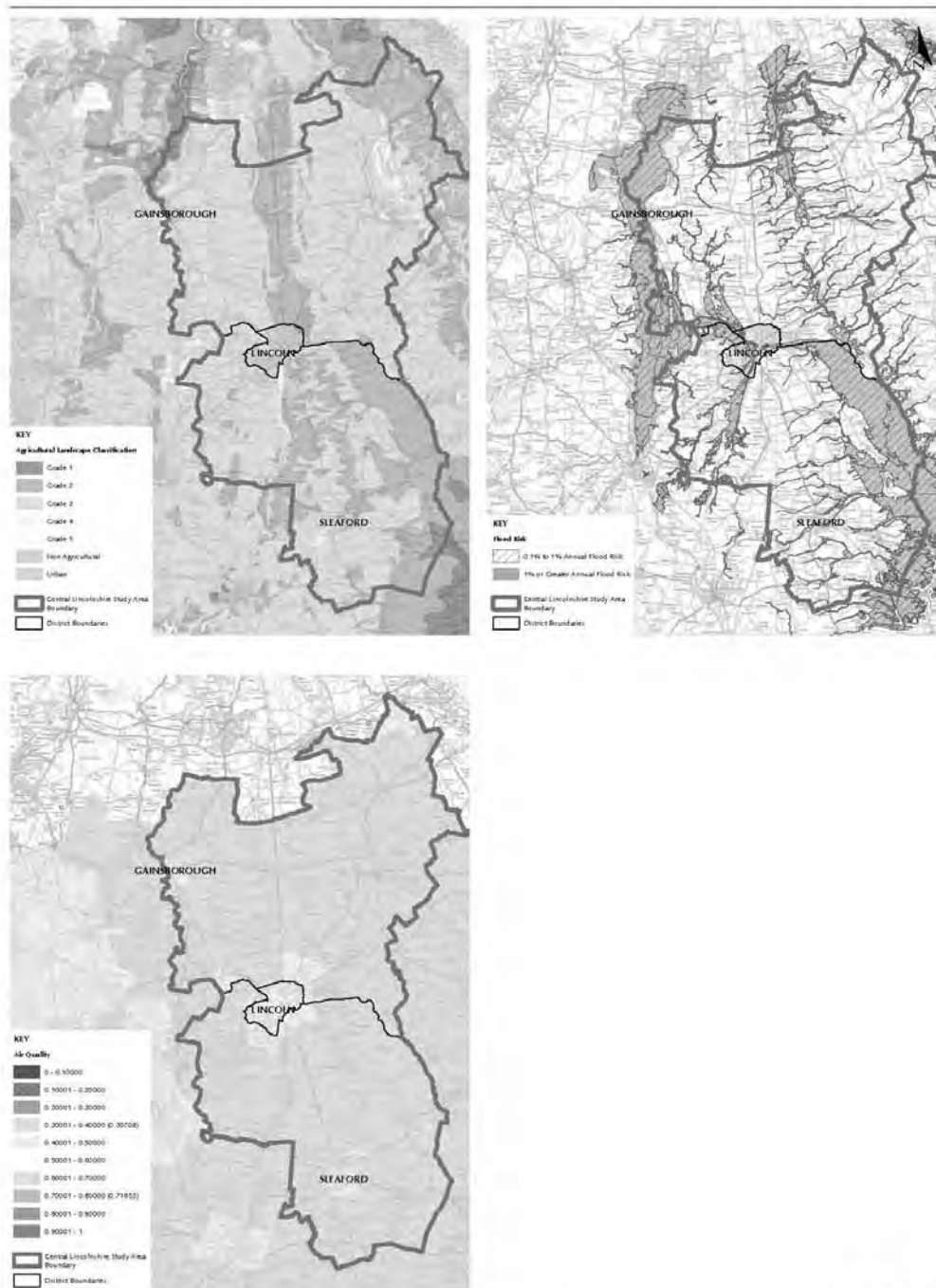


## STUDY OUTPUTS

- Executive Summary
- Volume 1 - Central Lincolnshire GI Strategy
- Volume 2 - Lincoln GI Audit and Assessment
- Volume 3 - West Lindsey GI Audit and Assessment
- Volume 4 - North Kesteven GI Audit and Assessment



# ECOSYSTEM SERVICES



0 5 10 km

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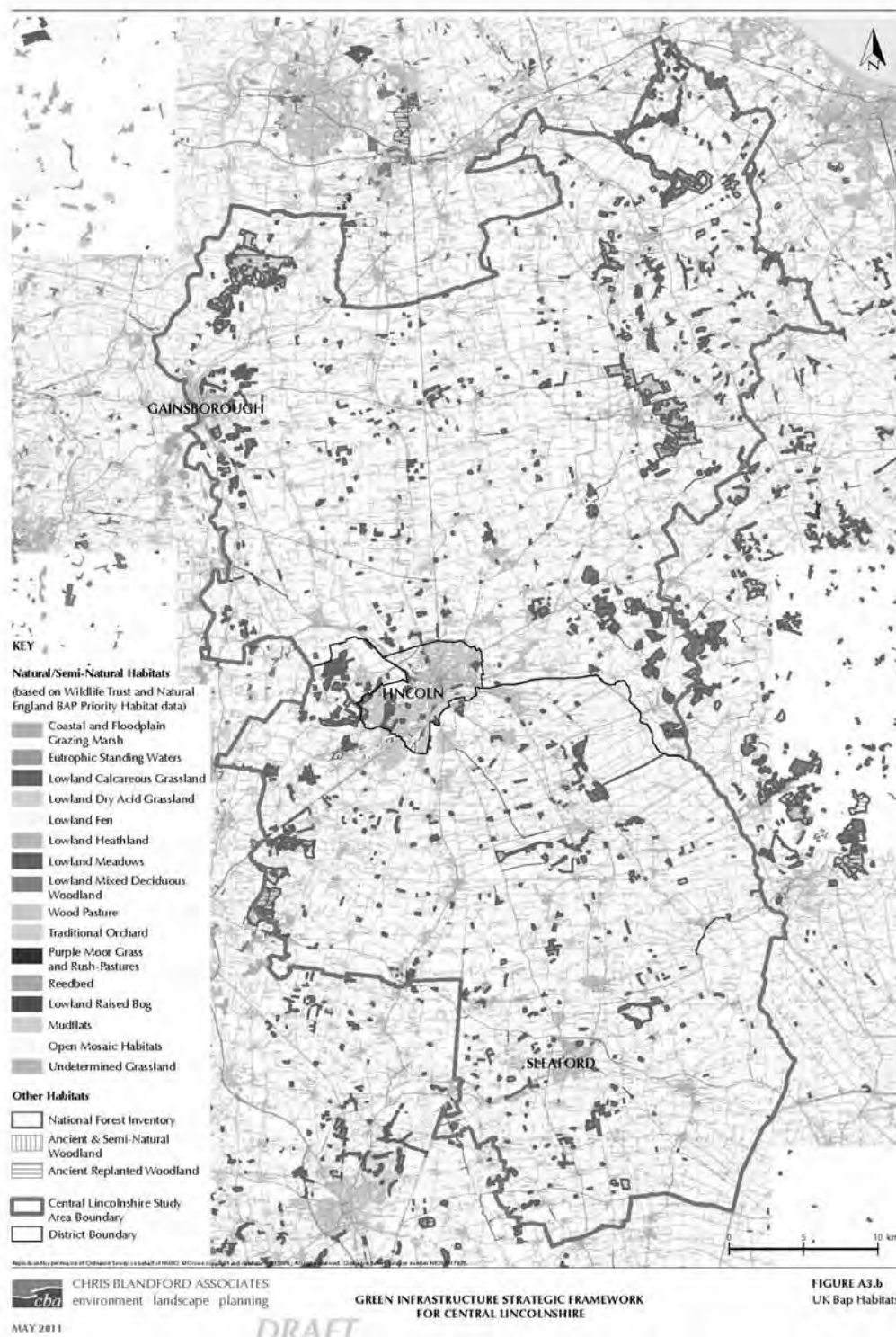
**GREEN INFRASTRUCTURE STRATEGIC FRAMEWORK  
FOR CENTRAL LINCOLNSHIRE**

JUNE 2011

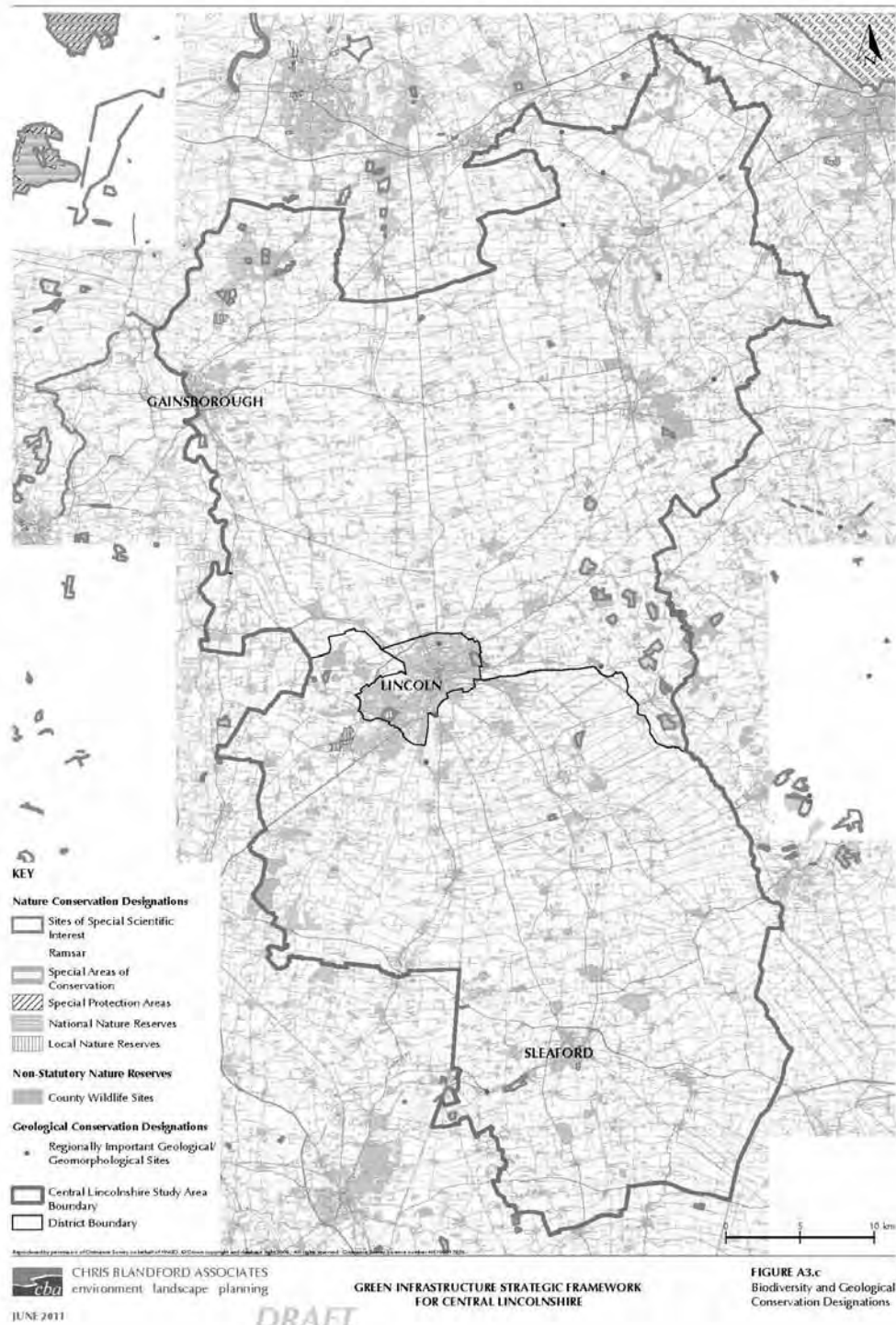
**DRAFT**

**FIGURE A3.a**  
Ecosystem Services

# BIODIVERSITY - UK BAP HABITATS

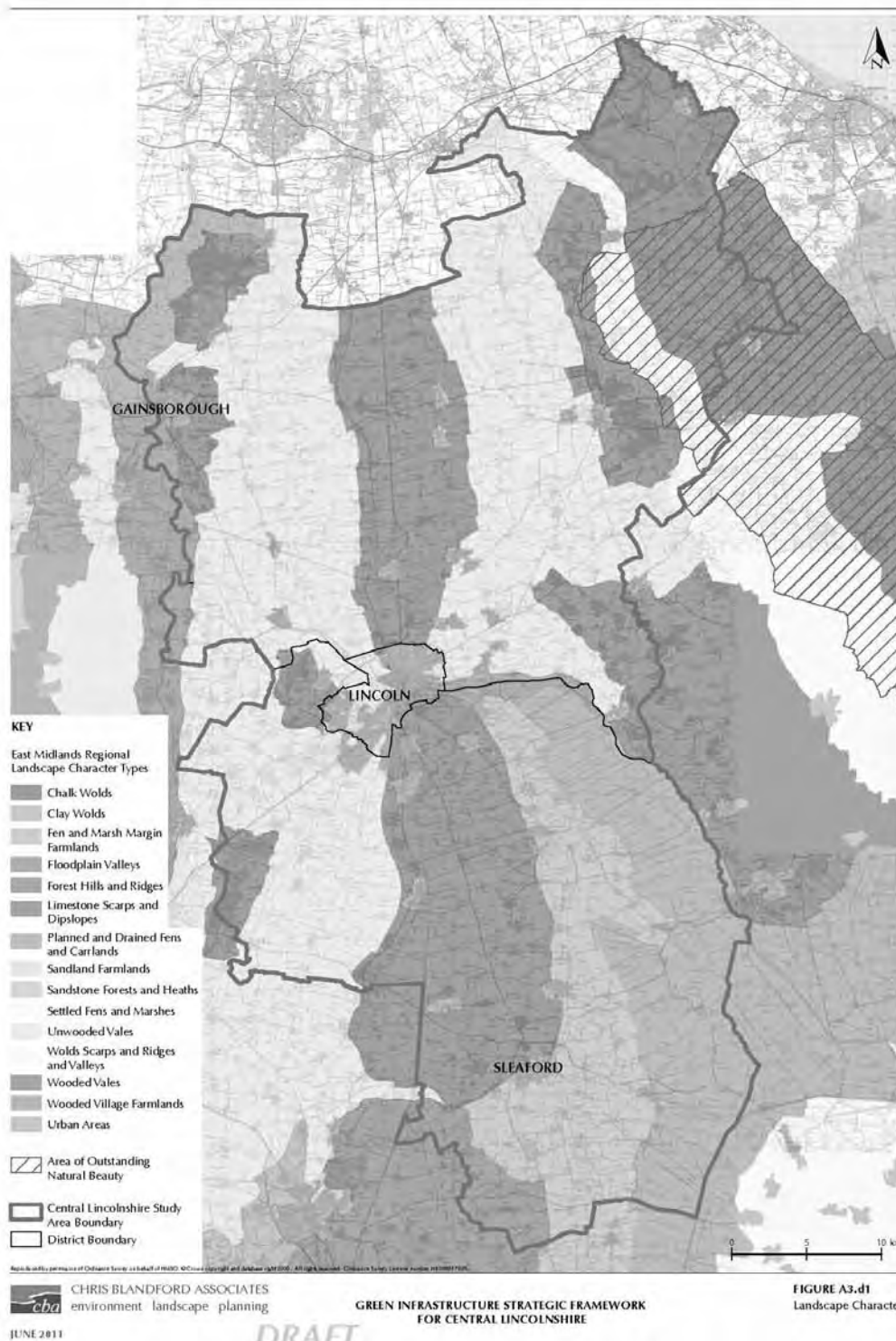


# BIODIVERSITY AND GEOLOGICAL CONSERVATION DESIGNATIONS

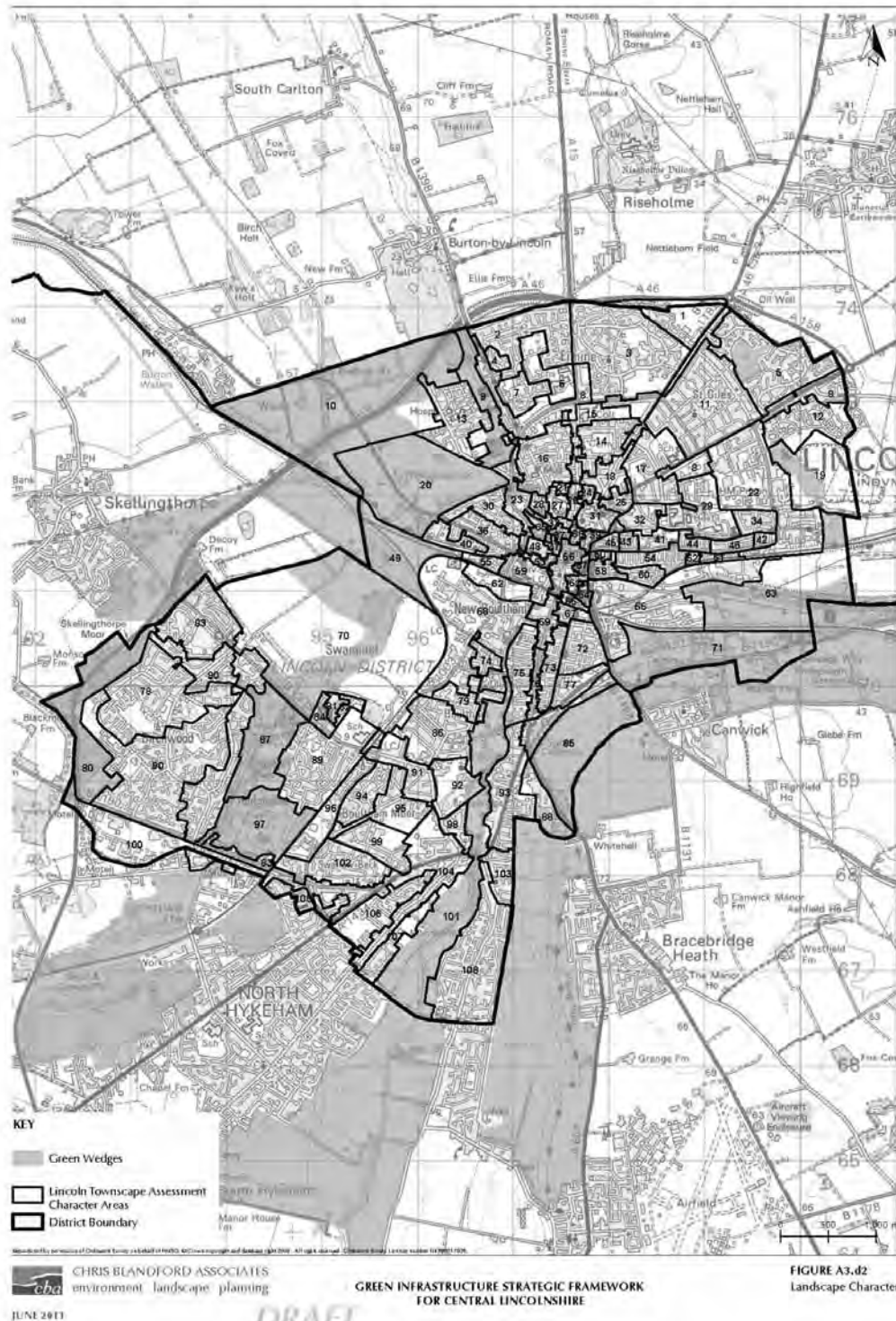




# LANDSCAPE CHARACTER

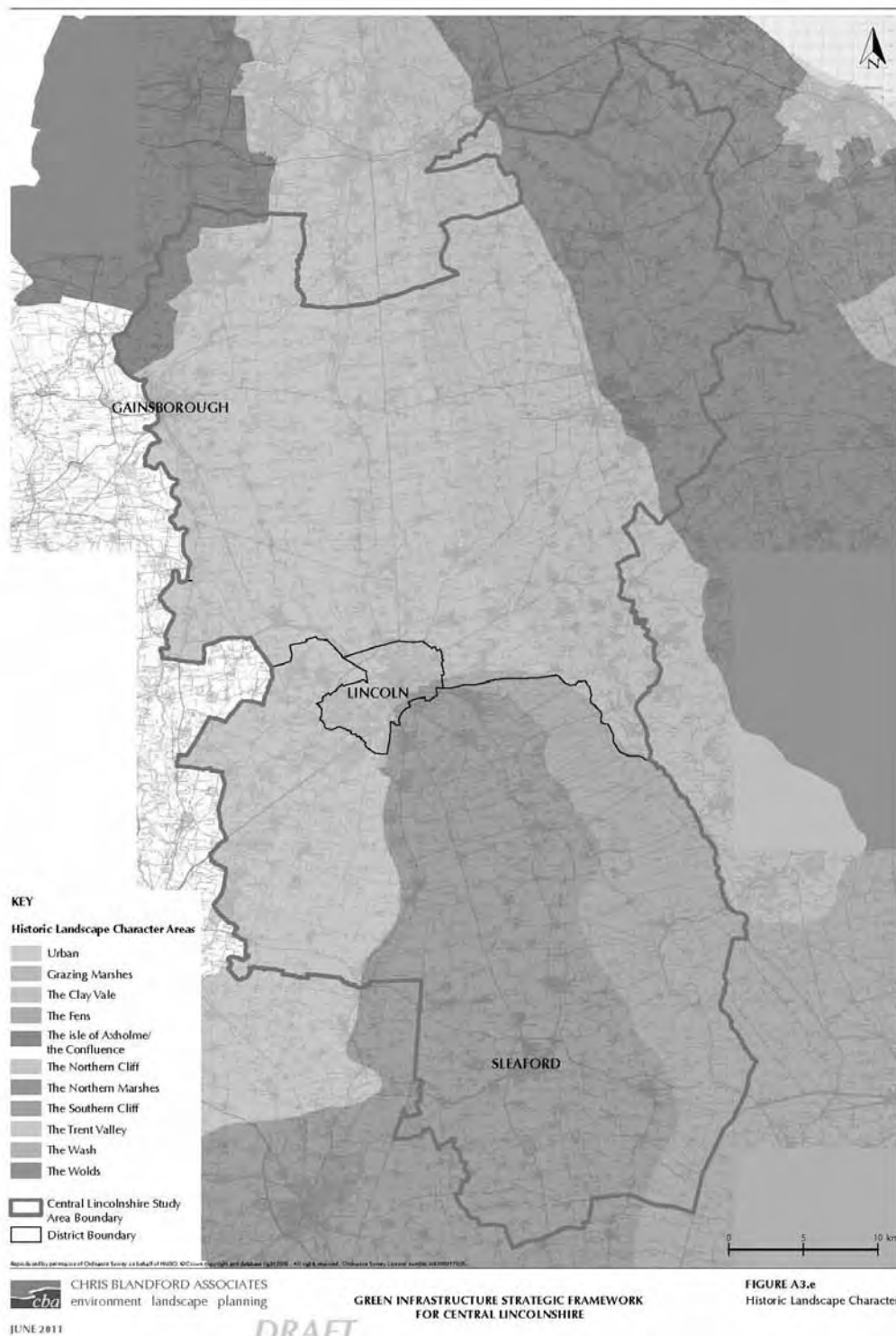


# TOWNSCAPE CHARACTER

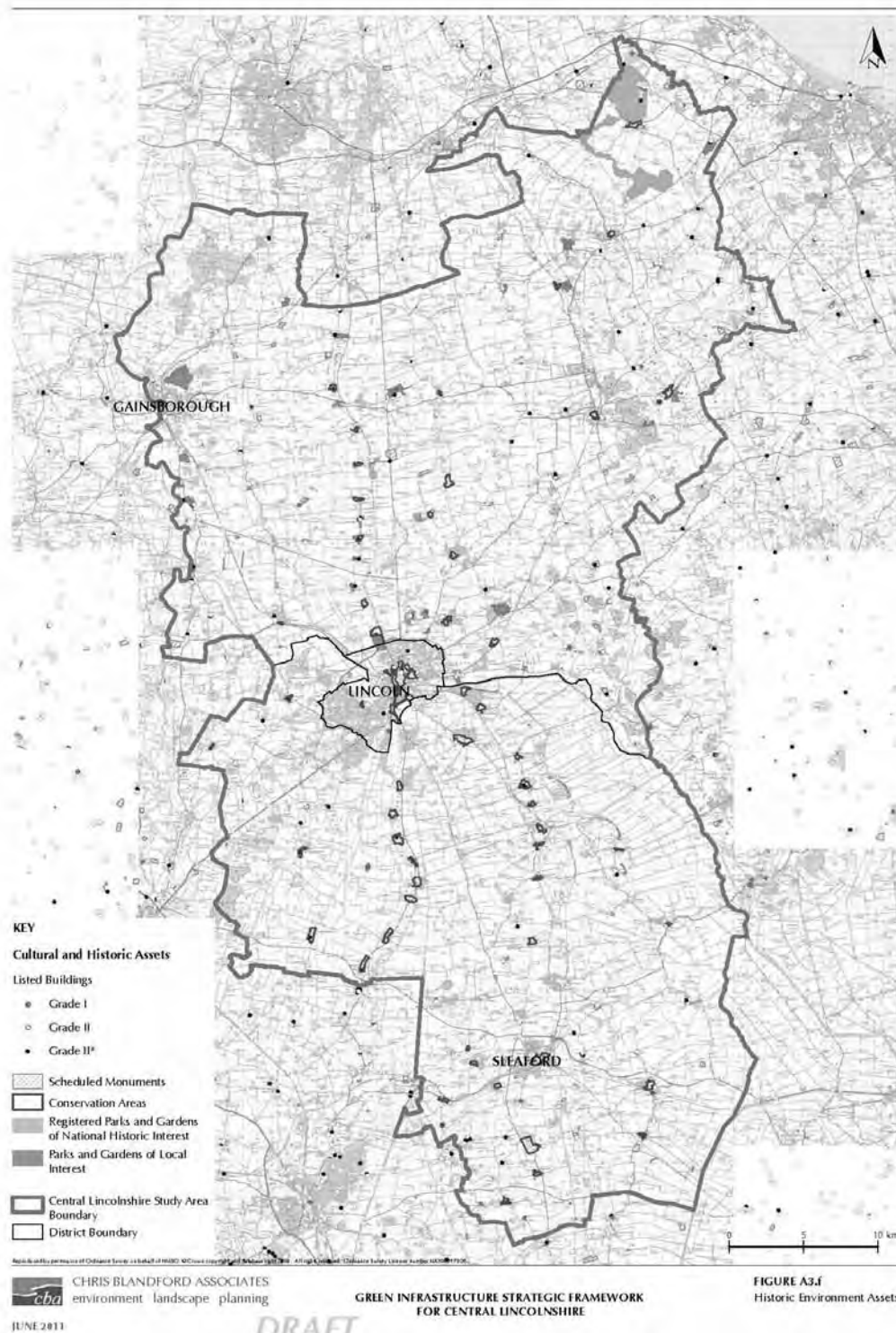




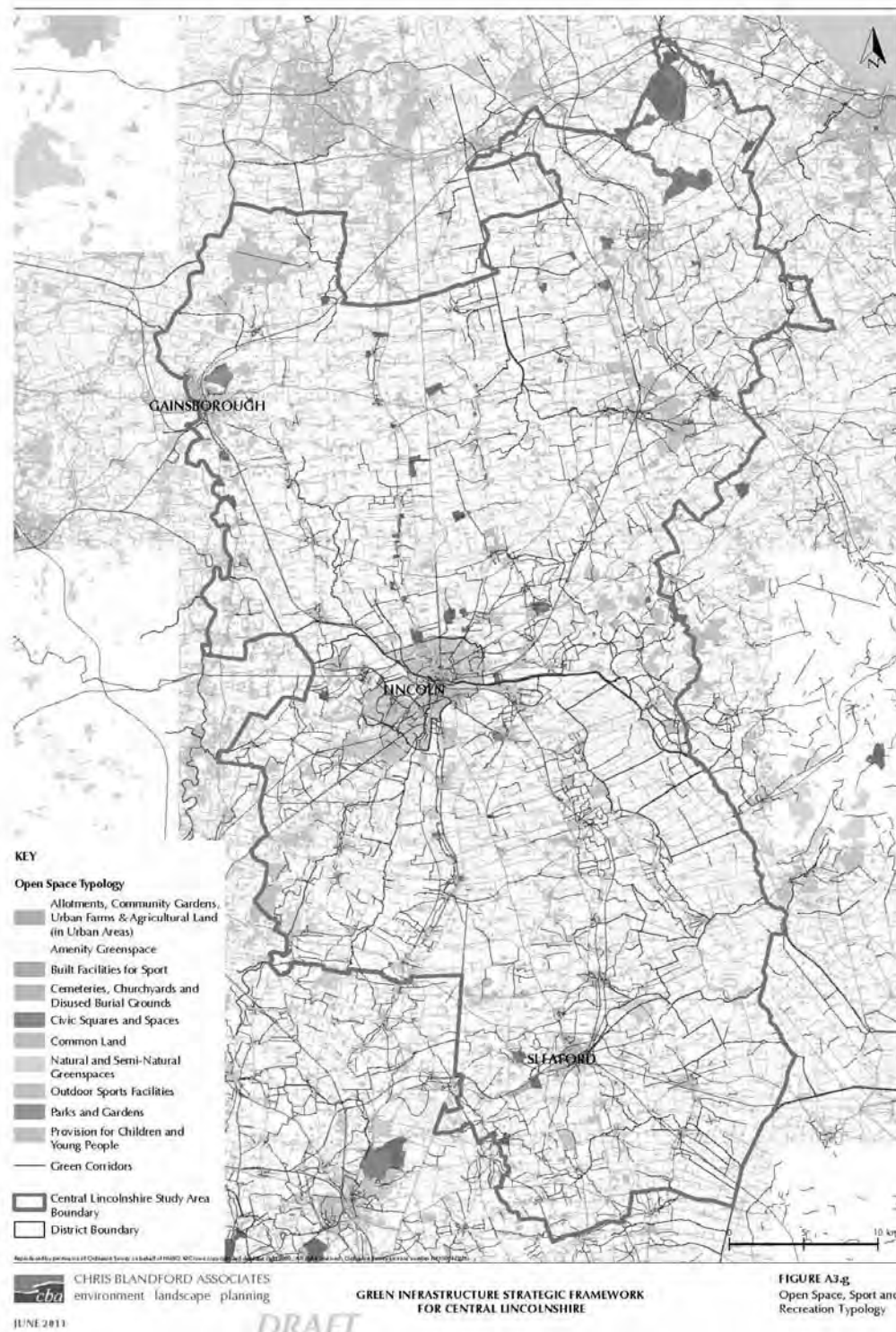
# HISTORIC CHARACTER



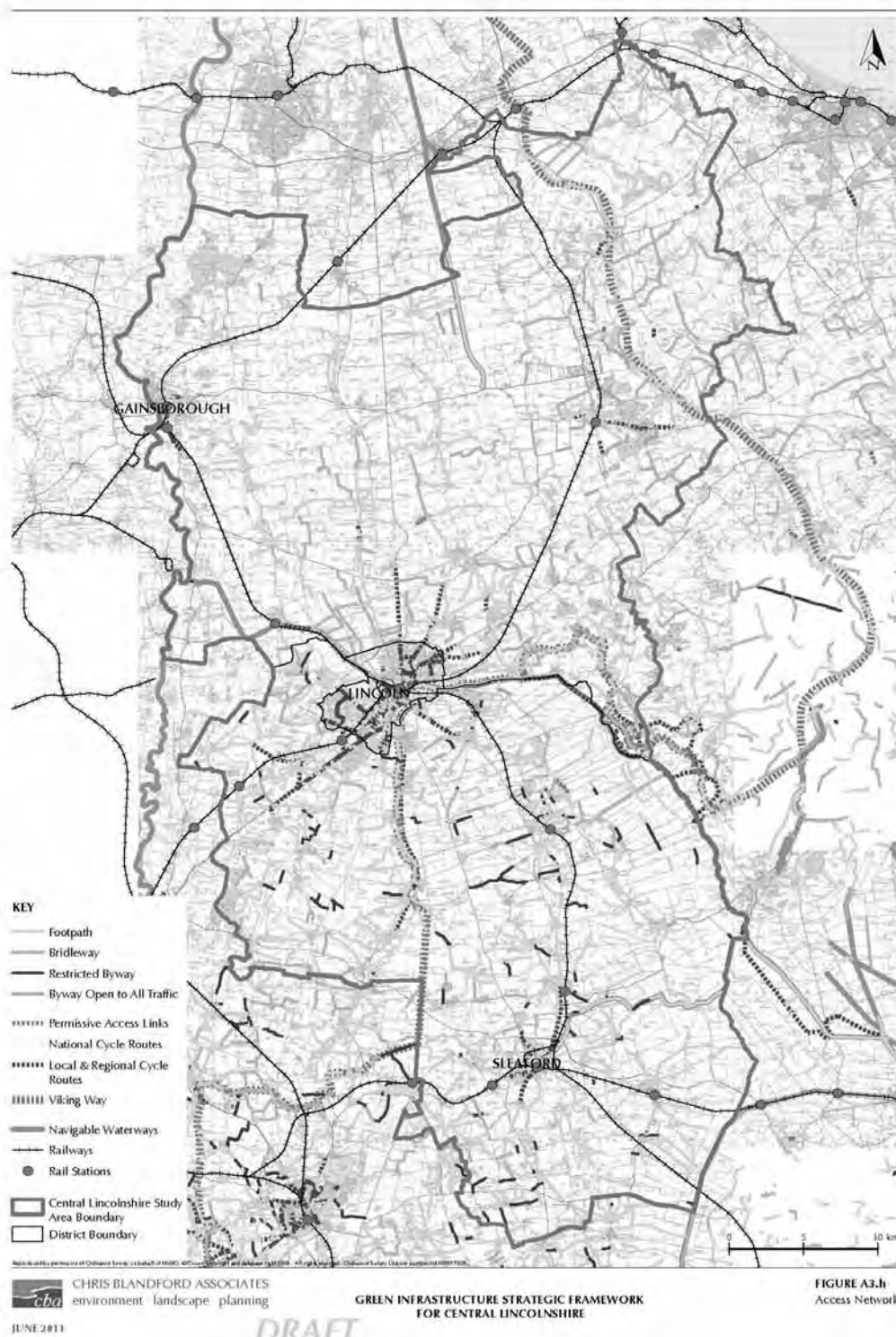
# HISTORIC ENVIRONMENT ASSETS



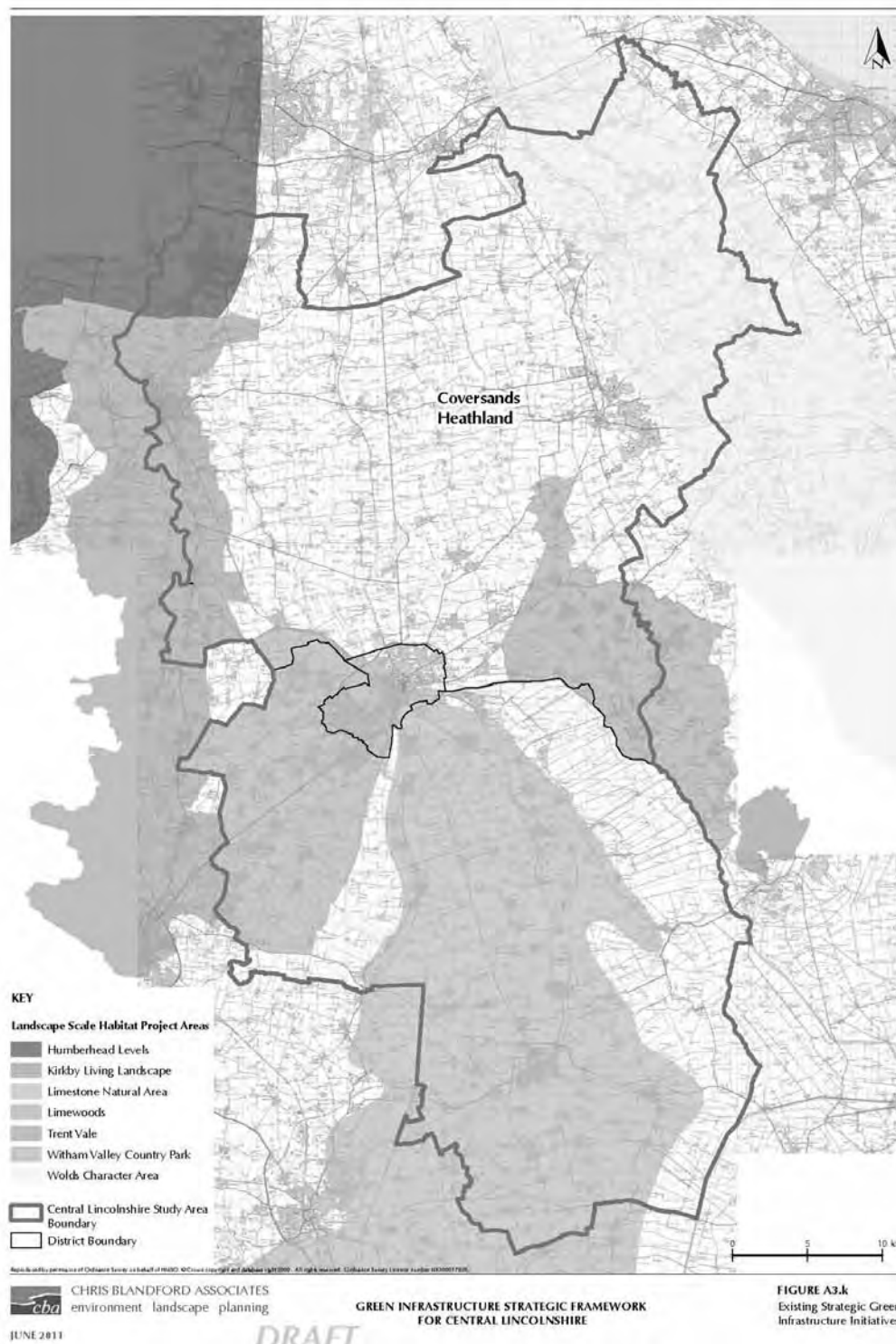
# OPEN SPACE, SPORT AND RECREATION TYPOLOGY



# ACCESS

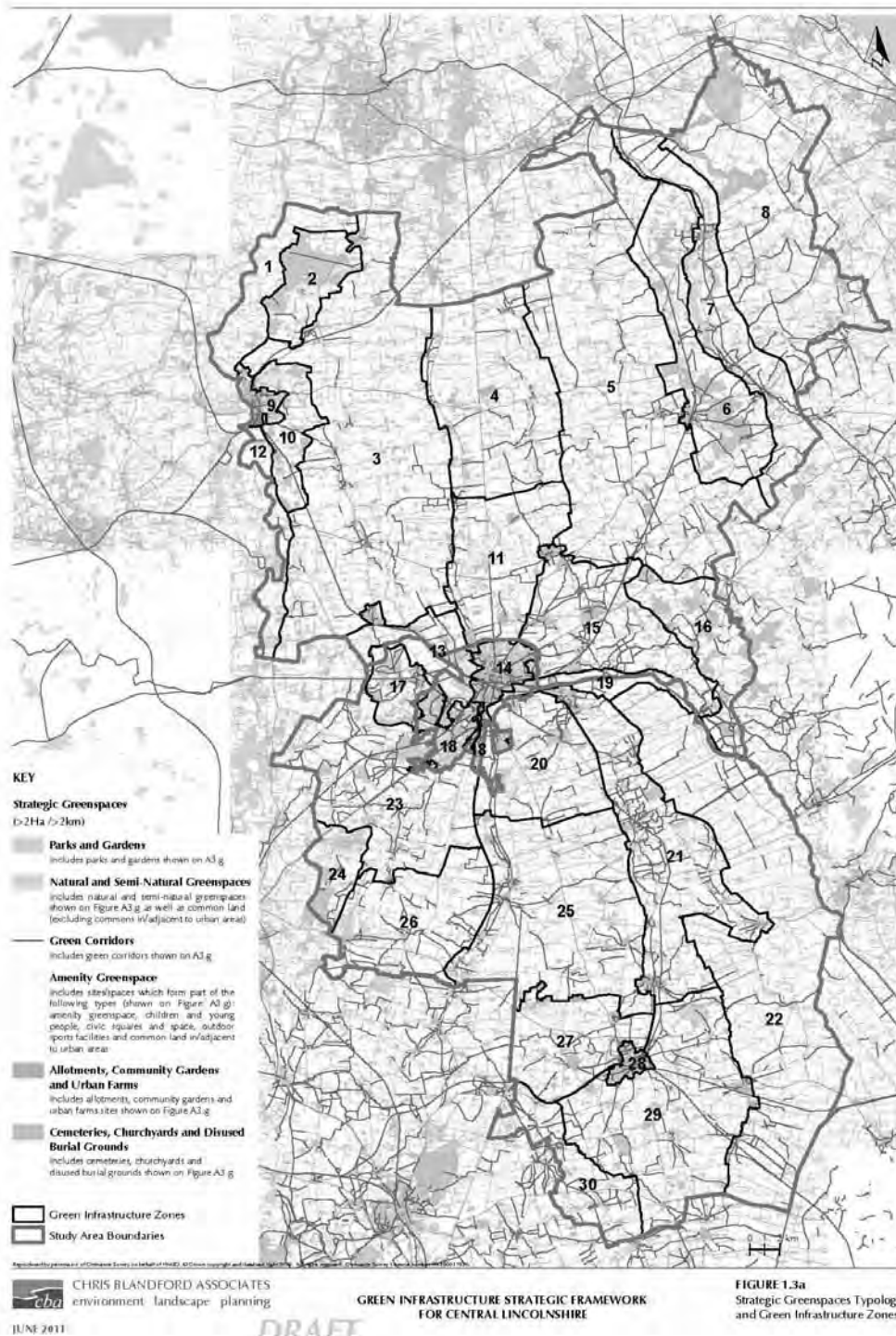


# STRATEGIC GREEN INFRASTRUCTURE INITIATIVES





# STRATEGIC GREENSPACES AND GREEN INFRASTRUCTURE ZONES



**ANY QUESTIONS?**



## **GREEN INFRASTRUCTURE AUDIT VALIDATION: CAROUSEL EXERCISE**

Table 1:  
**Ecosystem Services**

Table 5:  
**Access and  
Recreation**

Table 6:  
**Strategic GI Typology  
& Existing GI Initiatives**

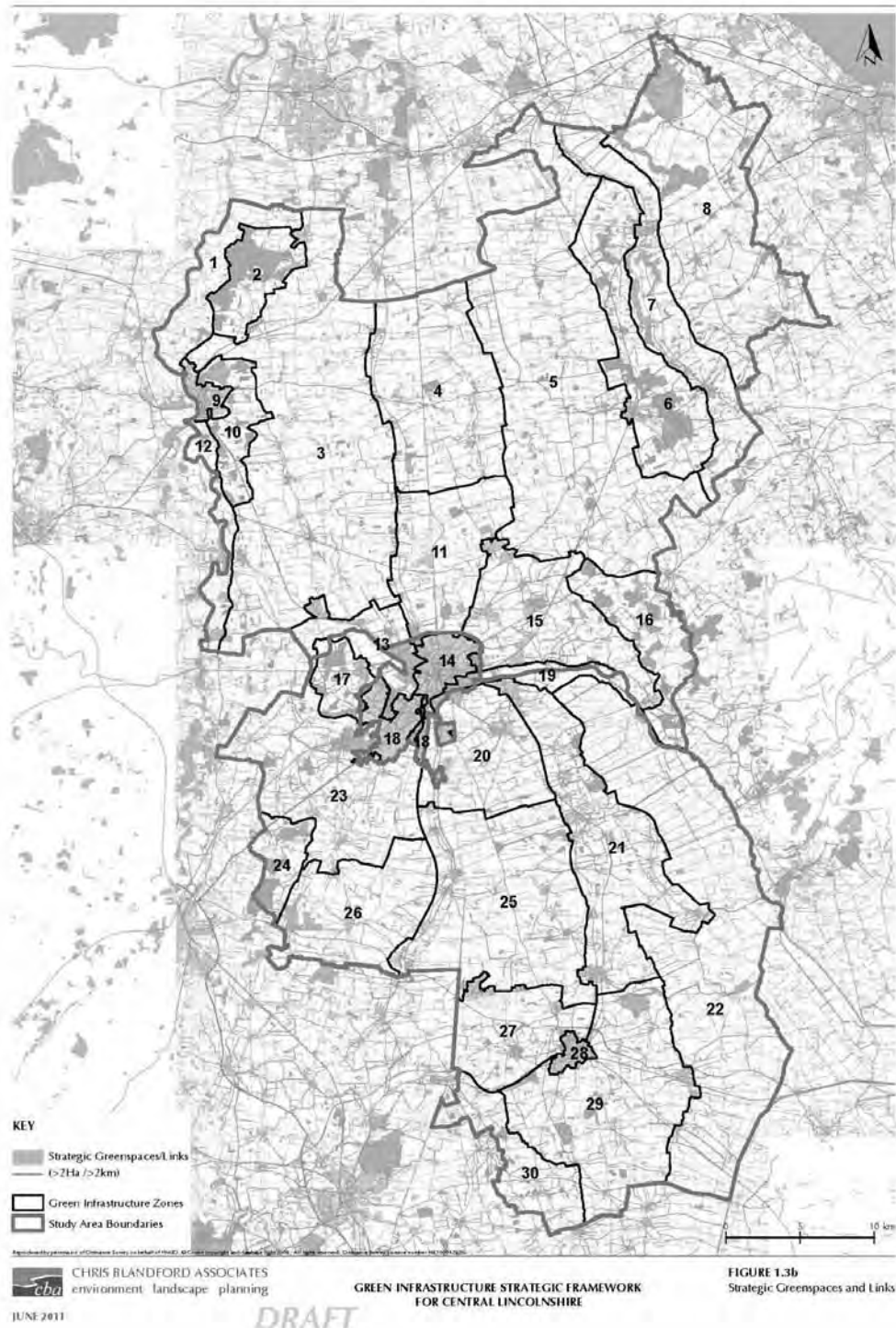
Table 2:  
**Biodiversity**

Table 4:  
**Historic Environment**

Table 3:  
**Landscape &  
Townscape Character**



# GREEN INFRASTRUCTURE NEEDS AND OPPORTUNITIES: BRAINSTORM GROUPS EXERCISE





## BRAINSTORM GROUPS EXERCISE

- **Purpose** - identify initial local GI provision priorities
- **Format** - 2/3 groups; facilitators; maps
- **Consider:**
  - \* *What are key GI needs/deficiencies?*
  - \* *What/where are key opportunities for enhancing GI provision?*



## FEEDBACK SESSION



## NEXT STEPS

- Workshop feedback - inform audit & assessment refinement
- Web-based stakeholder consultation on interim reports (w/c 4th July for 2 weeks)
- Web-based consultation on draft Strategic Framework (w/c 15th August for 4 weeks)



**THANK YOU!**



## Item 4

### Green Infrastructure Audit Validation: Carousel Exercise

Stakeholder comments, which were written on the individual maps provided, are listed below.

#### **Ecosystem Services Map**

- Flood risk dataset switched on incorrectly/anomaly with dataset provided
- Terminology relating to flood risk needs clarifying
- Map catchments. See Grimsby and Ancholme CFMP, Witham CFMP
- Proposed Washland Areas: Upper Witham FRMS (WIP), Lower Witham FRMS (WIP). Strategic environmental assessments for both strategies will be completed
- Lincoln Area – preliminary FRA (Lincolnshire wide)
- Consider the Water Framework Directive (WFD) and where is water good/bad, where are opportunities for improvement, and where are constraints
- Raise washlands near Market Rasen (marked on map as B)
- Opportunities to expand washland/new ones?
- Till/Witham washland – protect Lincoln

#### **UK BAP Habitats Map**

- Need to show more than BAP Habitats - especially open water (lakes and ponds)
- Watercourses are also very important
- Lincolnshire BAP Habitats?

#### **Biodiversity and Geological Conservation Designations Map**

- In the key replace County Wildlife Sites with Local Sites (includes Local Wildlife Sites and Sites of Nature Conservation Importance)
- Are RIGS local geological sites? RIGS is old terminology but is still exists in parts of Lincolnshire as not all previously identified RIGS have been assessed against the new criteria
- New LNR site south of Gainsborough marked on the map (exact boundary not show)
- Should ancient monuments be shown as wildlife sites as they are ancient grassland, e.g. Barkings Abbey and Nettleham Bishops Palace?
- Need to add a caveat in the text explaining that Local Wildlife Sites are not all identified yet. Notable are is Laughton Forest.
- The Life on the Verge project has extended to the Wolds Character Area – this will identify more verges

#### **Landscape Character Map**

- The AONB is a national designation
- Consider wider data layers such as Natural England's National Character Areas and the Countryside Quality Counts Data layers

#### **Townscape Character map**

- Lincoln Townscape Assessment has been extended to include some areas beyond the urban area (email Adam Partington)
- Hykeham Town Study (North Kesteven District Council)
- Lincoln City masterplan
- Should barriers be shown on the map, e.g. roads?

#### **Historic Environment Assets Map**

- Show Witham Valley Archaeological Project Area? Contact Mark Bennett at the Lincolnshire County Council
- Should waterways such as the Trent/Fossdyke be considered as part of cultural/historic assets?

- Give consideration to unknown/undesigned but important historic environment assets? Might affect where things go?
- Is the bomb store east of Aisthorpe protected?

### **Open Space, Sport and Recreation Typology Map**

- Outdoor Sports Facilities – add Silk Willoughby Golf Course and Pottergate Golf Course
- Outdoor Sports Facilities – skate parks, scrambling track, parish councils, Playing Fields Association, Rothwell-Thoresway, water-skiing west of North Hykeham, climbing wall/quad biking site marked on the map near Nettleham Moor
- Built Facilities for Sport – schools, village halls, MoD bases, rivers, lakes/ponds, sailing, rowing, canoeing, angling
- MoD ball park in Harpswell
- Natural and Semi Natural Greenspace – would be useful to show what is/isn't accessible to the public
- Some areas shown Natural and Semi Natural Greenspace are intensively farmed land (especially on the edge of Lincoln)
- Green Corridors – what is the definition? Possibly a misnomer? Should waterways form part of a separate type so that a distinction can be made between blue and green corridors?
- Is there scope to include visitor centres? They are the focus of recreation and provide information (all linked to sites but provide information and facilities)
- Forestry Commission database
- Scunthorpe growth may impede on recreational sites in West Lindsey
- Area near Gainsborough marked on the map as not being part of green corridors
- The site located north-east of Gainsborough, which is shown as a cemetery is not a cemetery

### **Access Network**

- There is a disused railway in the Lincoln Area
- There is a need to publicise local circular routes
- The Public Right of Way network is often fragmented/dis-connected especially in the central part of West Lindsey District
- Map main rivers/other key watercourses as well as navigable waterways?
- Consider commercial/freight use of navigable waterways – especially the Trent
- Waterways form multi-functional corridors and cover a range of uses, e.g. recreation, commercial use and wildlife habitats
- Check whether the Wanderlust Way falls within the Study Area
- 3 Spires Way
- There is a potential link to Nottinghamshire over the River Trent, west of Brampton. A feasibility project has already been completed on its potential use
- Some existing Public Right of Way routes to the south of Gainsborough are not shown on the map
- The Chesterfield Canal, a navigable waterway owned by British Waterways joins the river at West Stockwith
- Not all riverside permissive paths shown, e.g. Witham
- Add the National Byway
- There are more cycle routes in Gainsborough

### **Strategic Greenspaces Typology and Green Infrastructure Zones**

- Should waterways form part of a separate type so that a distinction can be made between blue and green corridors?
- Should green burial sites be mapped? Some possible locations shown on the map
- Contact Alan Freeman with regards to the location of quarries
- A number of cemeteries/churchyards were marked on the map
- Nettleham Woods
- Should strategic sites/corridors include sites/spaces smaller than 2ha/2km?
- Some areas shown as Natural and Semi Natural Greenspace are intensively farmed land (especially on the edge of Lincoln)

- Chapel Farm shown as Natural and Semi Natural Greenspace which is incorrect
- Liquorice Park Millennium project in Lincoln
- Impact of Eastern Byway
- Area of amenity greenspace marked on the map in Nettleham
- Possible anomaly in terms of what has been included as part of Lincoln's urban area – Bracebridge Heath and Waddington are included but not Washingborough/Nettleham/Skellingthorpe

#### **Existing Strategic Green Infrastructure Initiatives**

- Update boundary of Witham Valley Country Park – part of it is missing on the map
- Lincoln transition town (Kate Bell)
- Tourism led initiatives

## Item 5

### Green Infrastructure Needs and Opportunities: Brainstorm Groups Exercise

Stakeholder comments/thoughts marked on the individual maps provided (map of strategic greenspaces/links and green infrastructure zones at the Central Lincolnshire scale and zoomed in on the Lincoln Area) are listed below as well as key discussion points captured by individual group facilitators.

#### Group A (Facilitated by Dominic Watkins)

##### Comments/thoughts marked on the maps:

- Do 'green buses' form part of the green infrastructure network?
- Linkages through to Whisby
- Cycle links across Lincoln City
- Use old railway lines as paths. One old railway marked on the map (between Waddington and the existing railway line which goes through the centre of Lincoln)
- Major connection issues for foot and cycle access out of Lincoln
- Opportunity for a cycle route and habitat creation linking woodlands between Rand and Market Rasen
- Opportunities for better public and sustainable transport links from Lincoln to visitor hubs e.g. Limewoods and Willingham Woods (east of Market Rasen). Other links also needed
- Aspiration for Trent Valley path on Lincolnshire's side
- Link River Witham /Fosdyke to the Trent for waterways access
- Opportunity – Witham water taxi
- Water Rail Way – link
- Fosdyke Canal highlighted on the map
- Use land for food or fuel?
- Check allotment provision and demand in parishes
- Check allotment provision/uptake with City of Lincoln
- Greetwell Hollow and quarry (north-east Lincoln) – LWS widely used by locals which would be an ideal community project
- Nettleham Woodland Trust – community woodland at Dunholme (developed with LWT)
- Potential for wet grassland creation within the Witham Valley (climate change adaptation - flooding) + food production + link habitats to limewoods
- HLS schemes
- Potential for large xxx. "Total Environment" – DEFRA (flood alleviation, habitat uses, WFD)
- Zone 7 and 8 – Wolds AONB. Life on the Verge Project (surveying roadside verges, adopt a verge scheme).
- Plot Internal Drainage Board main drains

##### Comments/thoughts captured by the Group Facilitator:

- Greenways – off road multi-user routes (e.g. along Witham corridor)
- Blueways - e.g. Witham/Fosdyke (navigable waterway) (Lincolnshire Waterway Partnership)
- Trent corridor – navigation (commercial and leisure traffic)
- Ancholme navigation (N-S)
- Sleaford navigation corridor – restoration project (not live): possibly continue towards river Witham
- Trent to Retford to Worksop (Chesterfield Canal - navigable canal)
- Community woodlands (e.g. Nettleham Woodland Trust) (biodiversity and access to nature/LFT Funding)
- Water Directive Framework (see river basin management plan re strategic needs/opportunities)
- IDB main drains – ecological corridors

- Countryside access hubs
- Lincoln edge quarries – community environment projects (e.g. Greetwell Hollow)
- Missing links in local access network – connectivity improvements (e.g. Hartsholme to Whisby Nature Park)

### **Key Themes**

- Connectivity
  - Access and biodiversity
- Focus on growth points
  - Lincoln, Gainsborough and Sleaford
  - Pressures and opportunities
- Witham Valley (Zone 19)
  - Multi-functional greenspace
- Water management
  - Key ecosystem service
  - Quality, supply, use, etc
- Rural economy/agricultural land uses focus
- Redundant Brownfield airfields
- Mineral extraction sites
  - Opportunities – floodplain sand and gravel, chalk quarries, limestone quarries – waste xxx (after-use)
- Woodlands – link Limewoods
- Zonal approach – useful tool for articulation

### **Group B (Facilitated by Gill Wilson)**

#### **Comments/thoughts marked on the maps:**

- Opportunity for recreation and tourism in Zone 6
- Zone 16 – Limewoods
- Waterways link to River Nene
- Quarries offer recreation opportunities
- Biomass District Heating Scheme north of Lincoln
- Potential wind farm – Willoughton Cliff
- Name of some land owners marked on the map
- 

#### **Comments/thoughts captured by the Group Facilitator:**

- Wildlife
  - Low diversity – rural areas
  - High diversity in PUA
  - Opportunity to improve existing projects and identify new
  - Extend life on the verge to the north
  - Opportunity to align agri-environment schemes with other GI projects, e.g. the habitat improvement benefits from the 'life on the verge' project would be maximised and extended if adjacent agricultural field margins could be targeted
  - Opportunity for tree cover extension – woodlands
- Access and movement
  - We say open space but limited access
  - Opportunity to improve circular routes
  - Build on initiatives such as the 'stepping out walks project
  - Use of permissive footpaths
  - Waterways project + link to River Nene = big opportunity for tourism access

- The need to make the most of the navigable rivers and drains including the River Ancholme (navigable to a point – has been aspirations to extend in the past). There are Seven Internal drainage boards with responsibilities within Central Lincolnshire for different sections of the drainage system ; Upper Witham; Ancholme; Witham 1<sup>st</sup>; Witham 3<sup>rd</sup> and Black Sluice; Gainsborough; Newark;
  - Urban farms as opportunities to create as leisure attraction
  - Quarry after use opportunities to create as leisure attraction
  - AONB opportunity for increasing recreation
  - Urban to rural – link – opportunity to create bus/walk bus cycle leisure routes through discussion with bus operators
  - Opportunity for better liaison with main rural estates owners (Forestry Commission and family farm estates)
  - Opportunities from landfill tip restoration
  - Other opportunities for prioritising cycle footpath improvements within Witham Valley Country Park around Whisby Nature Reserve.
- Landscape/historic environment
    - Quality landscapes and heritage assets
    - Opportunities to protect better
    - Opportunity to better use/link natural, cultural and built heritage assets as leisure destinations e.g. Limewoods, Eagle Hall Farm (a house of the Knights Templars), historic roman roads and ecological corridors are linked. Private airfields and historic aviation groups
    - Opportunity to protect archaeology sites with wetland creation
    - Possible opportunities to improve access to private estates?
    - Threats – wind farm development
- Energy/food
    - Biomass plant proposals at Sleaford (biomass supply [straw] is likely to be demanded from within a 30 mile radius)
    - Opportunities for housing development to deliver/provide new/improved allotment sites
- Resource management and climate change
    - Opportunity for GI network to contribute through woodland planting
    - Urban areas/targeted for growth – trees, water management and biodiversity
    - The Water Management Act 2010 will be imposing the need for greater implementation of SUDs within new development from April 2012. The SUDs Approving Body in Lincolnshire will be the County Council. Engagement between the Approving Body and other relevant Central Lincolnshire partners is expected primarily through the Lincolnshire Flood Risk Management Framework Groups; Strategy Group chaired by the EA (Andy Baxendale); Operations Group chaired by the LCC; Central Lincolnshire drainage and management group chaired by LCC (Mark Welsh). The work of these groups and the opportunities for integrating with GI network objectives was identified
    - The existence and interest in some of the coal and gas reserves within Central Lincolnshire also needs to be considered as well as mineral sites

## **Group C (Facilitated by Chloé Cova)**

### **Comments/thoughts marked on the maps:**

- On-going restoration of Tealby Park
- Planning consent given for a solar farm south of Toft Next Newton
- Proposal for a marina along the River Witham
- Site north-west of Gainsborough – wood project/community project for clearing it
- Provide a link (footbridge) over the Trent (linking Gainsborough to green space over the river)
- Some MoD sites due to close/GI opportunities associated with this
- Make use of old railway lines
- Gainsborough extension – committed to 40% greenspace



- Employment Park in North Hykeham/Lincoln
- Proposed wind farm east of Heckington

#### **Comments/thoughts captured by the Group Facilitator:**

- Wildlife
  - Importance of Witham Valley Country Park initiative – green spine/opportunities relating to biodiversity
  - Limewoods project
  - Try and get a copy of the Forestry Commission's programme of works
  - Map main drains - opportunities relating to biodiversity
- Access and movement
  - Need to provide for different user groups including disabled users
  - Rivers and drains are underutilised (could be used for canoeing, angling, rowing). Some are not accessible and could potentially be made accessible/some are accessible but people aren't aware that they can use them
  - Safe access is a big issue big issue for Lincoln- both within Lincoln and from the city to the wider countryside. Greenspaces are disjointed
  - Need to bridge gaps in the access network particularly for cyclists and equestrians
  - Need to connect settlements to key assets
  - Gaps in network south of Lincoln and from Gainsborough to the wider countryside
  - Potential footbridges e.g. over Trent from Gainsborough
  - Promote existing/provide new sporting initiatives – green infrastructure as a platform for physical activity/healthy living
  - Lack of marketing relating to what green infrastructure sites are accessible/people unaware of things they can do
  - Better marketing of promoted routes needed
  - Low cost activities such as orienteering and bird walks should be promoted to encourage people to make use of greenspaces
  - Importance of Witham Valley Country Park initiative for access and recreation/leisure
  - Check projects carried out by the Lincolnshire Waterways Partnership and Trent Valley Partnership
  - Check the Lincoln Greenway Strategy, some of which has been implemented
  - Potential new routes/greenways along disused/dismantled railways. Try and contact Railway paths Limited.
  - MoD is a strategic land owner – potential opportunities for new GI on sites which are closing down. Opportunities for some of their facilities to be open to the public?
  - Key sporting activities, which are important for tourism: cycle grand prix, Lincoln K, Waddington air-show (RAF), Wings and fins (Wickenby), Christmas, water-ski jump championships, national Tug of War
  - Use Sport England planning tools to assess current and future needs, if appropriate. Note that Sport England's sport facilities 'database has gaps in relation to existing provision of different types of sport facilities across Central Lincolnshire's.
- Landscape/historic environment
  - Wolds AONB programme of works/strategy
  - Long term lack of investment in the historic environment generally
  - Map quarries
  - Map Witham Valley Archaeological Area of Importance
- Energy/food
  - There is currently a high demand for allotments, which is likely to increase when population numbers rise

## **Documents/Leaflets Provided**

- Leaflet named 'Strategic green infrastructure – a county wide strategy'
- Leaflet named 'Fens Waterways – link update'
- Leaflets of the Water Rail Way

## **Item 6 Feedback**

### **Feedback from Mr Watson (Environmental Team Leader Lincolnshire County Council)**

Mr Watson sent on email prior to the workshop outlining the following three points:

- The importance of identifying a GI network that includes statutorily- and non-statutorily-designated as well as undesignated locations for biodiversity & wildlife and providing for the integrity of the functions of this network to be conserved.
- The need to recognise the importance of the "green corridors" & "wedges" that are part of the pattern of development that has arisen in Lincoln, respecting the "gap" landform and which penetrate towards the centre of the city. Do not block these in pursuit of a more compact plan for urban expansion and (re-)development. Sleaford & Gainsborough may also require some attention to this as well.
- Be prepared to recognise locations where woodland or smaller groups of trees have naturally colonised and incorporate these areas into the GI and the wider landscape. They have a "natural quality" that does not come with planted locations. Their further development might need to be managed.



## **APPENDIX A4**

### **CONSULTATION FEEDBACK ON THE INTERIM REPORT**

## CONSULTATION FEEDBACK ON THE INTERIM REPORT

An Interim Report setting out the preliminary findings of the Central Lincolnshire GI Audit and Assessment work (Stages 1 and 2) was made available to the stakeholders listed in **Appendix A2** for review and comment.

The following stakeholders provided comments/feedback on the Interim Report:

Organisation	Name	Job Title
Central Lincolnshire Joint Planning Unit	Brooke Smith	Central Lincolnshire GI Study Project Manager & Policy Planning Officer
English Heritage	Ann Plackett	Regional Planner
Environment Agency	Andy Bailey	Planning and Corporate Services, Technical Specialist
Lincolnshire County Council	Jodie Davies	Climate Change Project Officer
Lincolnshire County Council	Jon Watson	Environment Team Leader
Lincolnshire County Council	Liz Fleuty	Lincolnshire Limewoods Project Officer
Lincolnshire County Council	Beryl Lott	Historic Environment Manager
Lincolnshire County Council	Alan freeman	Head of Planning
Lincolnshire Wildlife Trust	Caroline Steel	Head of Conservation
National Farmers Union	Paul Tame	Regional Environment Adviser (East Midlands Region)
Natural England	Ryan Bavin	Conservation & Planning Adviser, Land Use Operations Team - Midlands
North Kesteven District Council	Mike Lock	Client Officer (Recreation)
North Kesteven District Council	Sue Chambers	Parish Partnerships Officer
Upper Witham Internal Drainage Board	Kenneth Pratt	Engineer to the Board
West Lindsey District Council	Rob Lawton	Environment, Policy and Information Team Leader
Witham 3 <sup>rd</sup> Internal Drainage Board	Alan Gardner	

## **Summary of Consultation Feedback on GI Audit and Assessment**

- Emphasise the role of agricultural land in contributing to local food production.
- Emphasise river habitat fragmentation issues (i.e. barriers to fish passage).
- Include reference to the Upper Witham Flood Risk Management Study currently being developed.
- Emphasise the role of Internal Drainage Boards including in managing the value of drains for biodiversity.
- Consider showing Grade 3a from 3b agricultural land classifications on the maps.
- Distinguish Limewoods Project from the Limewoods resource.
- Clarify the case for protection of the landscape from visually intrusive development.
- Include reference to ongoing work being carried out to reduce habitat fragmentation, e.g. hedgerow replacement programmes.
- Where appropriate, distinguish between the Lower and Upper Witham.
- Include reference to 'Life on the Verge' in GI Zones which form part of the Lincolnshire Limewoods National Character Area.
- Include reference to the need for appropriate protection and management of locally significant historic assets as informed by the Lincolnshire Historic Environment Record.
- Make reference to heritage assets identified as being at risk within Central Lincolnshire, drawing on both English Heritage's Heritage at Risk Register and local registers as appropriate.
- Highlight the potential archaeological value of ancient woodlands.
- Include reference to the Lincoln Cliff Area of Distinctive Landscape Character designation in the North Kesteven Local Plan.
- Consider Historic Environment Opportunity Mapping.
- Include additional open space, sport and recreation sites/facilities identified by stakeholders.

## **Other Comments**

- GI Strategy should give consideration to the Lincolnshire Total Environment Initiative led by LCC in partnership with the EA and other stakeholders.
- Clarify definition of term 'greenspace' in relation to GI.

## **Action Taken**

All key points raised above were considered in the preparation of the final study reports as appropriate.





**APPENDIX A5**  
**CONSULTATION FEEDBACK ON THE CONSULTATION DRAFT REPORTS**

## CONSULTATION FEEDBACK ON THE CONSULTATION DRAFT REPORTS

A Consultation Draft of the Study set out in three volumes was made available for a 4 week consultation period to the stakeholders listed in **Volume 2 Appendix A2**, for review and comment.

The following stakeholders provided comments/feedback on the Consultation Draft:

Organisation	Name	Job Title
British Waterways	Ian Dickinson	Area Planner (East and West Midlands)
Central Lincolnshire Joint Planning Unit	Brooke Smith	Central Lincolnshire GI Study Project Manager & Policy Planning Officer
Central Lincolnshire Joint Planning Unit	Amy Steer	Forward Planning Officer
City of Lincoln Council	Mike Roberts	Head of Economic Sustainability and Tourism
City of Lincoln Council	Gill Wilson	GI Study Project Manager/Team Leader Development Planning
City of Lincoln Council	Various	Various
English Heritage	Ann Plackett	Regional Planner
Environment Agency	Andy Bailey	Planning and Corporate Services, Technical Specialist
Groundwork Lincolnshire	Vicky Dunn	Senior Project Development Officer
Lincolnshire Biodiversity Partnership	Fran Hitchinson	Biodiversity Services Manager
Lincolnshire County Council	Liz Fleuty	Lincolnshire Limewoods Project Officer
Lincolnshire Wildlife Trust	Caroline Steel	Head of Conservation
National Farmers Union	Paul Tame	Regional Environment Adviser (East Midlands Region)
Natural England	Ryan Bavin	Conservation & Planning Adviser, Land Use Operations Team - Midlands
North Kesteven District Council	Sarah Attrill	Witham Valley Country Park Project Officer
Upper Witham Internal Drainage Board	Kenneth Pratt	Engineer to the Board

## CONSULTATION FEEDBACK

### British Waterways (BW)

#### *Comments on GI Strategy (Volume 1)*

- Pleased that the Study recognises the multi-functionality of GI and particularly of inland waterways, which provide more than purely open space and wildlife habitats.
- Noted that inland waterways can make significant contributions towards the provision of local and strategic green infrastructure.
- Support the approach taken in the Study of identifying a range of functions to be fulfilled by the various greenspaces and corridors identified within it.
- (Paragraph 2.2.4) Pleased that waterways owned and managed by BW have been identified within this section as GI assets and that the Draft Study recognises the importance of navigable waterways as “blue corridors” providing a valuable leisure and recreational resource as well as being of natural and historic importance.
- (Section 2.3) Agree that there are potentially quite significant opportunities for enhancing the access and recreation value of waterways and their banks. BW noted that whilst they recognise the importance of seeking to restrict unnecessary or inappropriate development in the countryside, they would also comment that as inland waterways are non-footloose assets (i.e. their location and alignment are fixed), a flexible approach to development is necessary as certain types of development and uses are dependent upon the location of waterway infrastructure itself and the movement of boats along the waterway. BW consider that it is important that the Study acknowledges that appropriate and necessary waterway-related and waterway-dependent development, often in rural locations, will be required in order to fully realise the potential of the waterways and to improve and encourage access to them, given the land use implications and locational requirements arising from this inherent constraint upon waterway-related development.
- (Section 3.0) BW emphasised the value of waterways as multi-functional community resources which can serve in a variety of role and as such, can play a positive role in helping to achieve the draft objectives and sub-objectives identified in the Study.
- (Para 3.3.10) Agree with the identification of the Trent, Witham and Fossdyke as Strategic Green Corridors to be afforded significant importance as priority areas for strategic GI enhancement.
- (Paragraph 3.3.12) Agree that waterways can also serve as Strategic Green Access Links stating that ‘the towpath network provides a motor-vehicle-free environment in which to travel to work, school or home, and that 100 tonnes of carbon dioxide (CO<sub>2</sub>) are saved per 1 kilometre of towing path upgraded’ (TCPA Policy Advice Note: Inland Waterways: Unlocking the potential and securing the future of inland waterways through the planning system. 2009).
- BW noted that whilst they support the use of tow paths, or other riverside paths, as sustainable transport routes for both walking and cycling, it should be recognised that this can place extra liabilities and burdens on the waterway infrastructure (in terms of increased frequency of maintenance work, or the need to upgrade surfaces to cope with increased footfall), and as such it is important that mitigation of the impacts on the waterway infrastructure through increased usage is an integral part of any strategy to enhance their use.
- (Paragraph 4.2.2) BW noted that, in relation to the core principles for GI Delivery, No.3 in particular should be borne in mind in relation to consideration of development proposals affecting waterways. BW referred to *Planning a Future for the Inland Waterways* (IWAAC, December 2001), which states that ‘*waterway corridors have a useful role to play in widening travel choices, providing opportunities for cycling, walking, alternative public transport and green routes. To ensure long term use of towpaths as sustainable route, investment and maintenance are needed*’.
- BW noted that whilst waterside developments and regeneration schemes benefit from their waterside location, they can place extra liabilities and burdens on the waterway infrastructure, such as towpaths, and as such it is important that mitigation of the impacts on the waterway infrastructure through increased usage is an integral part of any such development proposals. BW were pleased to see that the importance of securing developer contributions had been acknowledged in paragraphs 4.5.7- 4.5.9.

### ***Comments on GI Audit & Assessment (Volume 2)***

- (Paragraph 2.6.14) Agree with the assessment that waterways in Central Lincolnshire support a wide range of activities and facilities and emphasised that waterways are valuable community resources that 'cut across policy themes and support a range of Government agendas and that should not be seen purely as GI, as such an approach would significantly limit the prospects of fully realising their potential as multi-functional assets.
- (Paragraph 3.4.17) Pleased that the Study identifies the importance of continued liaison with the Lincolnshire Waterways Partnership (of which BW is a member) in terms access and recreation opportunities and commented that this would be an appropriate way to ensure that the needs of the waterways are recognised and understood so that they can contribute positively to the provision of Strategic GI within Central Lincolnshire, whilst still recognising their multi-functionality and the wide-ranging social, environmental and economic benefits that they can bring.

### ***Comments Related to the Core Strategy***

- No comments made.

### ***Other Comments***

- British Waterways would not wish to see a policy approach which sought to limit or prevent appropriate waterway-related and waterway-dependent development, which is often essential to maintaining the economic well-being of the waterways and to realising their full potential as multi-functional community assets and are therefore pleased that the Study appears to be seeking to set a framework for delivering GI improvements which recognises this.

### **Central Lincolnshire Joint Planning Unit (CLJPU)**

#### ***Comments on Consultation Draft (Volume 1)***

- Consider referring to Trees or Turf – Best Value in Managing Urban Green Space in relation to project costs.

#### ***Comments on Consultation Draft (Volume 2)***

- Include figures illustrating the Character Types identified in the North Kesteven and West Lindsey Landscape Character Assessments.
- Consider expanding summary paragraph relating to the Lincoln Growth Point Characterisation Project.
- The Lincolnshire Historic Landscape Characterisation Study has now been published.
- Consider including a link to the new Witham Valley Country Park website.

### ***Comments Related to the Core Strategy***

- None were made.

### ***Other Comments***

- No other comments were made.

### **City of Lincoln Council (CoL)**

#### ***Comments on Consultation Draft (Volume 1)***

- The Head of Economic Sustainability and Tourism noted the importance of delivering GI which is available and accessible to deprived and disadvantaged communities in central Lincolnshire.
- (Figures 1.4b-d) Amend 'Potential Growth Location Options' to read as follows: Potential Directions of Growth (as identified in the Central Lincolnshire Core Strategy Issues and Option Document, October 2010).
- (Figure 1.4b-d) Consider including the GI Zones on this figure.

- (Paragraphs 3.3.10 and 3.3.12) Consider including more commentary in relation to key needs/opportunities under individual Strategic Green corridors and Strategic Green Access Links.
- (Paragraph 3.3.1) Clarify that the Strategic Green Corridors are provisional and are intended to be reviewed and amended as necessary in light of the forthcoming Biodiversity Opportunity Mapping Study.
- (Table 4.1) Amend the description of The Total Environment initiative (10) in light of information provided.
- (Table 4.1) Distinguish between The Central Lincolnshire Local Food initiative (13) and the existing Tastes of Lincolnshire initiative.
- (Paragraph 4.4.2) City of Lincoln is currently Group Chair.
- Include urban area to the west of Hartsholme Country Park in the Lincoln Urban Green Grid and update appropriate figures.
- Consider moving the proposed area of search for new accessible natural greenspace located to the west of Hartsholme Country Park in light of the additional sites included in analysis of accessible natural greenspace.
- Clarify that Strategic Green Corridors generally follow rivers/valleys due to the absence of biodiversity opportunity mapping.

### ***Comments on Consultation Draft (Volume 2)***

- Add caveat on Figures 2.17a-d that the Potential Directions of Growth are as identified in the Central Lincolnshire Core Strategy Issues and Option Document (October 2010).
- Include in the analysis of accessible natural greenspace additional sites provided by the City of Lincoln (identified as part of the 2008 City of Lincoln Biodiversity Audit) and amend text and figures where relevant in both Volumes 1 and 2.
- (Paragraph 4.19.6: Zone 18) Make reference to the River Valley cycle route – an off road route between the edge of the zone and the City Centre.

### ***Comments Related to the Core Strategy***

- No comments were made.

### ***Other Comments***

- No other comments were made.

### ***Comments on Consultation Draft (Volume 2)***

### **English Heritage (EH)**

#### ***Comments on Consultation Draft (Volume 1)***

- (Paragraph 1.4.5) Consider making reference to the cultural services provided by GI as part of the ecosystem services and to Lincoln's historic commons. EH noted that while biodiversity is a key aspect of GI, the management of GI networks should also be based upon an understanding of the historic environment and how it might inform change.
- Consider labelling Strategic Green Corridors and Strategic Green Access Links on Figure 1.4a to provide geographical context to the list of corridors and links provided in paragraphs 3.3.10 and 3.3.12 respectively.
- (Section 3.2 – Draft Objectives) Consider making reference to the role of GI in protecting heritage assets and/or their setting.
- (Section 4.8) EH enquired whether suggested further work/studies (e.g. Historic Environment Opportunity Mapping Studies and Townscape Character Assessment Studies) will be undertaken as they would provide an important contribution to the GI Strategy, as well as contributing to the development plans' evidence base.

### ***Comments on Consultation Draft (Volume 2)***

- No comments made.

### ***Comments Related to the Core Strategy***

- EH enquired whether green wedges are to be retained and whether they will be reviewed as part of the development of the Core Strategy.

### ***Other Comments***

- No other comments made.

### **Environment Agency (EA)**

#### ***Comments on Consultation Draft (Volume 1)***

- (Section 3.2 – Draft Objectives) Make reference to drought in the 9<sup>th</sup> bullet point and to GI helping reduce flood risk.
- (Appendix A3) Include reference to the Anglian river Basin Management Plan.
- Include reference to the Local Flood Risk Strategy which Lincolnshire County Council will be developing.
- (Table 4.1) Waterways Initiative (8):
  - Supportive of actions which will promote, and raise awareness of the role of waterways within Central Lincolnshire and how they fit into the wider waterways network.
  - Noted that the Lincolnshire Waterways Partnership's Strategy is now a bit out of date and quite general but the framework is entirely valid.
  - Noted that the potential projects list are largely either not on our watercourses and/or would be difficult to deliver in the current economic climate.
  - Noted that the Environment Agency's priority in terms of delivery is the Fens Waterway Link and that work which would better tie it into other parts of the waterways network would be welcomed. Additional new links from an Environment Agency perspective would not be a priority.
  - Consider including information provided in relation Table 4.2.
- (Table 4.1) Central Lincolnshire Flood Storage Initiative (9):
  - Noted that a number of flood risk studies/strategies are currently being developed. These include the Upper Witham Flood Risk Study, the Lower Witham Flood Risk Study and the Lincolnshire Local Flood Risk Strategy. The Ancholme Strategy will be developed in the future. None of these match the Central Lincolnshire boundaries, but are of significance.
  - Remarked that the GI Study rightly identifies the need for flood risk studies/strategies, environmental initiatives and planning work currently being developed to be consistent.
  - Noted that proposals for a Central Lincolnshire Flood Storage initiative need to ensure that they do not duplicate and they add value.
  - Noted that Lincolnshire County Council (as Lead Local Flood Authority) have developed a multi-agency partnership for managing flood risk. The partnership has been developed at three levels: Strategy, Operations and Delivery. A Central Lincolnshire Drainage and Flood Risk Management (Delivery) group has been established, which will be central to future provision and management of GI through flood risk management. The environment Agency advised that further work to develop this initiative should be discussed and agreed with this partnership to ensure consistency of objectives and that a presentation on the study (focused on flood risk) followed by a discussion on delivery and the need for a Central Lincolnshire Flood Storage feasibility study and how this might be achieved would be useful (including who would lead).
- (Table 4.1) Noted that the study has suggested initiatives that the EA may support – at this stage the EA would agree but would need to see more detail before deciding the level of resources that could be committed.
- (Table 4.2) Add IDBs, Districts and Anglian water to the list of partners for the Lincolnshire Total Environment Initiative.

### ***Comments on Consultation Draft (Volume 2)***

- No comments made.

### ***Comments Related to the Core Strategy***

- No comments made.

### ***Other Comments***

- No other comments made.

## **Groundwork Lincolnshire (GL)**

### ***Key Comments on Consultation Draft (Volume 1)***

- Support the identified projects in Table 4.3.
- (Table 4.2) Emphasised that community development use of volunteers and any government backed employment/work/volunteering programmes to up skill local people should be used to maximum effect in relation to all GI projects/initiatives.

### ***Comments on Consultation Draft (Volume 2)***

- No comments made.

### ***Comments Related to the Core Strategy***

- No comments made.

### ***Other Comments***

- No other comments made.

## **Lincolnshire Biodiversity Partnership (LBP)**

### ***Comments on Consultation Draft (Volume 1)***

- The LBP support the ninth bullet point of the Draft Eco-Development' Standard for GI and Biodiversity.
- (Table 4.2) Consultation required with the Lincolnshire Biodiversity Partnership to discuss their involvement in relation to the Central Lincolnshire Ecological Network Strategy (14).
- (Table 4.3) Noted that the CLJPU is listed as Lead Delivery Partner in relation to the action 'Use the biodiversity opportunity mapping to inform the proposed Central Lincolnshire Ecological Network Strategy and Local GI Delivery Plans'. This possibly conflicts with The LBP being listed as Lead Delivery Partner for the proposed Central Lincolnshire Ecological Network Strategy (14) in Table 4.2.
- (Paragraph 4.10.8) The LBP would welcome further consultation in relation to digital data management and, as a key contributor of environmental data to the Study, would wish to be included as one of the repositories of data.
- (Appendix A3) Include reference to Local Sites in the section which discusses the Lincolnshire Biodiversity Action Plan.

### ***Comments on Consultation Draft (Volume 2)***

- Emphasise that the BAP Habitat Map simply illustrates the extent of mapped habitats at present and not the whole resource. Consider amending the text in paragraph 2.3.1-2.3.2 and 3.2.2 to reflect this.
- (Paragraph 2.3.15 and Figures 2.3a-d) Make reference/map to Local Geological Sites.
- Clarify that NI 197 has been replaced by 160 in the single data list.
- The Lincolnshire Biodiversity partnership supports paragraph 3.214 and all the bullet points within it.

### ***Comments Related to the Core Strategy***

- No comments made.

### ***Other Comments***

- No other comments made.

## **Lincolnshire County Council (LCC)**

### ***Comments on Consultation Draft (Volume 1)***

- (Table 4.2) Include information provided in relation to The Lincolnshire Limewoods Project (5).
- Include additional partners to the list of partners for the Limewoods Project (LF).
- (Paragraph 4.4.2) Amend Lincolnshire Limewoods Project Group to read as follows: Lincolnshire Limewoods Partnership.
- (Paragraph 4.9.2) Add the Forestry Commission, Lincolnshire County Council, Lincolnshire Wildlife Trust and Natural England to the Lincolnshire Limewoods Partnership.

### ***Comments on Consultation Draft (Volume 2)***

- (Paragraph 2.8.11) Amend end date of the Lincolnshire Limewoods Project to December 2011.

### ***Comments Related to the Core Strategy***

- No comments made.

### ***Other Comments***

- No other comments made.

## **Lincolnshire Wildlife Trust (LWT)**

### ***Comments on Consultation Draft (Volume 1)***

- The LWT strongly support the Draft Vision, Objections and Core Principles for GI delivery, the 'Eco-Development' Standard for GI and Biodiversity and all strategic GI initiatives and projects listed in Table 4.1. Also support Table 4.3 and the proposed review process set out in paragraph 4.10.5.
- The LWT support the response from the Lincolnshire Biodiversity Partnership.
- (Section 3.2.1) Consider including an additional sub-objective/amending an existing one to more clearly tie in with wording in the Natural Environment White Paper and/or Making 'Making Space for Nature' emphasising the importance of 'more, bigger, better and joined' wildlife areas.
- Consider including Loughton Woods and Scotton Common Nature Reserve within the Trent Strategic Green Corridor.
- (Paragraph 3.3.16) Consider making reference to woodland, wetland and roadside verges when referring to habitat enhancement, linkage and creation in the wider countryside.
- Consider the following actions in relation to Table 4.1:
  - Refer to opportunities for GI via Minerals Strategies in the Witham Valley Country Park Project (1) description.
  - Rename Initiative 2 as follows: 'Humberhead Levels Initiative' and make text relating to the Humberhead Levels Partnership's vision more general.
  - Refer to the Lincolnshire Wildlife Trust's aspirations to extend the Life on the Verge Project (3) to the rest of the county.
  - Refer to the Lincolnshire Wolds AONB Management Plan in relation to The Life On the Verge Project (3) and Lincolnshire Wolds Chalk Streams Project (4).
  - Clarify that the Trent Vale Initiative (6) began its delivery phase in 2010.
  - Refer to the Witham Peatlands Wetland Initiative (7) within the context of the Fens Character Area as a whole.
  - Consider including the Lincolnshire Wolds AONB Management Plan and Coversands Heathland as additional projects/initiatives.



- (Table 4.2) Include information provided in relation to The Humberhead Levels Initiative (2), Life on the Verge Project (3), Lincolnshire Limewoods Project (5), Witham Peatland Initiative (7) and proposed Coversands Heath Initiative.
- (Section 4.6.10 - Draft Eco-Development Standard) Make reference to Local Wildlife Sites/Geological Sites.
- (Section 4.8.5 - Further work) Emphasise the need for the Biodiversity Opportunity Mapping to be carried out as a matter of urgency.
- (4.9.2) Add the Lincolnshire Wildlife Trust to the Lincolnshire Limewoods Partnership.
- (Paragraph 4.10.5) Consider emphasising that The LBP will be keeping data on habitats and species up-to-date.

### ***Comments on Consultation Draft (Volume 2)***

- Consider suggested text amendments provided in relation to the description of the Humberhead Levels and Life on the Verge Projects

### ***Comments Related to the Core Strategy***

- No comments made.

### ***Other Comments***

- No other comments made.

## **National Farmers Union**

### ***Comments on Consultation Draft (Volume 1)***

- The NFU welcome their proposed presence on a GI Forum.
- The NFU emphasised the importance of ensuring that GI delivery takes into consideration farmland (All delivery considerations associated with proposed projects will form part of feasibility studies/business plans)

### ***Comments on Consultation Draft (Volume 2)***

- No comments made.

### ***Comments Related to the Core Strategy***

- No comments made.

### ***Other Comments***

- No other comments made.

## **Natural England**

### ***Comments on Consultation Draft (Volume 1)***

- Generally satisfied with the report and particularly welcome the mapping of GI assets, deficiencies, opportunities and recommendations.
- (Paragraph 2.2.9) Consider making reference to the relevant Environment Agency documents (e.g. emerging Upper and Lower Witham Catchment Flood Management Plan) so that opportunities for floodplain GI contribution can be identified at an early stage.
- (Paragraph 2.2.5) Observed that the report identifies a clear deficiency in Central Lincolnshire in accordance with ANGSt and that key sites within the Lincoln area (e.g. Hartsholme Park, Whisby Nature Park) have been identified as already being very accessible. Natural England advises that the aims for improving access to green space in Central Lincolnshire are fully integrated with the emerging aims and objectives of the Witham Valley Country Park.

- (Paragraph 2.3.1) Welcome the inclusion of this section on biodiversity needs and opportunities and in particular using GI to halt the trend of habitat loss and fragmentation. Natural England noted that, as mentioned in the second bullet point, the GI study (and relevant Core Strategy options) should therefore, where necessary, make explicit references to reports such as the Lawton Review and the Natural Environment White Paper, so that Central Lincolnshire's GI aspirations and delivery is in keeping with government aspirations.
- (Section 5.0) Welcome the identification of strategic priorities, strategic green corridors and strategic green access links and intention to use these to link both internally within the Central Lincolnshire area, and to districts outside of Central Lincolnshire.
- Welcomed the inclusion of the Upper Witham as a key strategic green corridor and strategic green access link and advised that this should explicitly relate to the emerging aims and objectives of the Witham Valley Country Park.
- (3.3.15 – Urban Green Grids) Welcome the principles for the green grid proposal as part of new development and Sustainable Urban Extensions
- (3.3.15 – Urban Green Grids) Consider the inclusion of the 40% green space Eco-town standard as part of the urban green grid.
- (3.3.21) Welcome the links to the River Trent, Newark and the Bassetlaw District GI Strategy.
- (4.2 – Core Principles for Green Infrastructure Delivery) Generally supportive of the four core principles that are contained within this section.
- (4.4.3) Concur with the bullet points contained within this section.
- (4.4.4) Natural England would welcome a co-ordinator role for Central Lincolnshire GI.
- (4.5 – Potential funding sources) Consider the additional and complimentary GI funding sources provided.
- (4.5 – Potential funding sources) Welcome the inclusion of developer contributions as a potential funding source – where possible, the Core Strategy should include a strongly worded policy that will enable the delivery of GI through these means. Milton Keynes provides a good example of developer contributions in providing GI.
- (Section 4.6 – Draft eco-Town Standard) Consider adding the following to the list of bullet points that make up the Eco-Development Standard: landscape (greenspace that is in keeping with and improves local landscape character); reference to and promotion of sustainable travel; SUDS and climate change adaptation.
- (4.8.4) Welcome the approach for the development of Area Action Plans.
- (Appendix A4) Welcome the policy advice given by CBA and the identification of Lincoln, Gainsborough and Sleaford as individual entities.

### ***Comments on Consultation Draft (Volume 2)***

- The Biodiversity Opportunity mapping exercise remains outstanding from the GI audit. Natural England is currently investigating the development of a different model to produce the required biodiversity opportunity mapping output for the GI study.

### ***Comments Related to the Core Strategy***

- Natural England advised that the mapping of GI assets, deficiencies, opportunities and recommendations should be given careful consideration when the Central Lincolnshire Joint Planning Unit are developing their GI policies and objectives for the emerging Core Strategy
- (Section 2.3) Welcome the sections on biodiversity, Landscape and Heritage, Access and Recreation, and Ecosystem Services, noting that these are all important components of GI which should be reflected in Core Strategy policies.
- (Section 3.0) Natural England strongly welcome the inclusion and content of this section of the report and advise that the CLJPU gives full consideration to this section in shaping their own Core Strategy policies, objectives and priorities within Central Lincolnshire
- Natural England would strongly welcome the inclusion of the 40% greenspace Eco-Town standard within the relevant policies, objectives and priorities of the emerging Core Strategy

- (4.5 – Potential funding sources) Advise that where possible, the Core Strategy should include a strongly worded policy that will enable the delivery of GI through developer contributions. Milton Keynes provides a good example of developer contributions in providing GI.
- (Section 4.6 – Draft eco-Town Standard) Strongly supportive of the Eco-development standard for GI and Biodiversity and strongly advise that a suitably worded planning policy aspires to this within the emerging core strategy

### ***Other Comments***

- Suggest that the promotion of GI that is mentioned in Section 4.2 should be explored in the 'marketing' of the Witham Valley Country Park.

## **North Kesteven District Council**

### ***Comments on Consultation Draft (Volume 1)***

- The Witham Valley Country Park Project Officer noted that:
  - The Draft Consultation reports provide a great deal of depth in terms of defining GI and the different categories and components of GI.
  - The level of detail in mapping GI assets, strengths and weaknesses and opportunities is exemplary.
  - (Paragraph 3.2.1 Draft Objectives/eight bullet point) An objective of the Country Park in the next six months is to begin to put a price tag on the net carbon offset generated by the Country Park area.
  - (Section 4.5) Local authority funding for GI may be more sustainable if a toolkit was made available enabling the conversion of carbon offset into financial value.
  - (Paragraph 4.5.3) One of the medium to long term objectives of the Country Park is to form a community Interest type organisation which will be a repository for Section 106 and CIL monies. A comprehensive Mineral Extraction Restoration Matrix for Central Lincolnshire is being developed, in conjunction with the Country park, to ensure that there is a balance of after use beneficial to the Country Park and that all levies are utilised accordingly.
- The Witham Valley Country Park Project Officer welcomes:
  - (Paragraph 2.2.5) The comments highlighting the limitations on accessible natural greens spaces in Central Lincolnshire (a fundamental objective for Witham Valley Country park is to address this).
  - (Paragraph 3.3.12) The reference made to the importance of increasing connectivity (one of the objectives of the Country Park).
  - (Paragraph 4.4.4) A co-ordinator role for Central Lincolnshire.
- The Witham Valley Country Park Project Officer endorses the core principles for GI Delivery.
- The Witham Valley Country Park Project Officer suggested the following amendments to Volume 1:
  - Provide more information in relation to GI benefits linked to tourism and health outcomes.
  - (Paragraph 4.4.3) Consider widening the existing membership of the Steering Group.

### ***Comments on Consultation Draft (Volume 2)***

- No Comments made.

### ***Comments Related to the Core Strategy***

- No Comments made.

### ***Other Comments***

- No other Comments made.

## **Upper Witham Internal Drainage Board**

### ***Comments on Consultation Draft (Volume 1)***

- It is important to consult and involve The Upper Witham IDB in the planning, design and delivery of GI in Central Lincolnshire.
- The Upper Witham IDB noted that:
  - Watercourse maintenance requires space to allow plant the room to undertake works required to maintain the level of food risk and recommend that every development includes suitable space adjacent to watercourses or ditches (of any size) as an integral part of the proposed development layout.
  - Requirements from developers, planning authorities and/or highway authorities to culvert watercourses to allow construction of footpaths or provide garden areas should be resisted.
- (Paragraph 2.2.4) Make reference to drainage ditches and watercourses being part of blue corridors.
- (Paragraph 2.2.9) Clarify what is meant by the term floodplain (IDB).
- (Paragraph 3.2.1) The Upper Witham IDB noted that where sub-objectives relate to access, caution should be taken and access only permitted when suitable and safe.
- (Table 4.1) The Upper Witham IDB noted that:
  - Whilst the initiatives listed may not be new for all partners they may a new idea for some.
  - In relation to The Lincolnshire Total Environment Initiative (10), it would be helpful if potential needs of watercourses were considered at early stages of development proposal.
  - In relation to the Central Lincolnshire Green Access Links/Greenways Network Initiative (15), Gainsborough Green Grid Initiative (16), and Lincoln Green Grid Initiative (17), access and recreation areas should be provided where suitable and justified. There could be a conflict between footpath usage and biodiversity needs.
- (Paragraph 4.9.2) Add Internal Drainage Boards to the list of supporting partners and where appropriate in Table 4.2.
- (Table 4.2) The Upper Witham IDB noted that:
  - In relation to the Central Lincolnshire Flood Storage Initiative (9) IDBs would be looking to work with the EA to locate managed flood storage areas to gain best value.
  - The Lincolnshire Total Environment Initiative (10) is a long-term initiative, which IDBs are trying to contribute to. The Upper Witham IDB would welcome more detail on this.
  - The Central Lincolnshire Local Food Initiative (13) has been undertaken by IDBs and the EA for some time and is a long-term initiative. Associated costs maybe high.
  - Development consultation could help achieve elements of the Central Lincolnshire Green Access Links/Greenways Network Initiative (15), Gainsborough Green Grid Initiative (16), and Lincoln Green Grid Initiative (17). These should be on-going projects with funding also coming from developers.
- (Paragraph 4.10.7) Consider rationalising the number of databases and preferably avoid creating a new one.
- Consider making reference to Internal Drainage Boards and the Environment Agency in Appendix A5
- Make reference to the need for the plans, policies and programmes of the different public bodies responsible for flood risk and land drainage management in Central Lincolnshire (EA, IDBS, Local authorities etc.) to be aligned in respect of maximising delivery of GI benefits (IDB)

### ***Comments on Consultation Draft (Volume 2)***

- (Paragraph 2.2.26) Expand the description of the work carried out by Internal Drainage Boards (see leaflet provided).
- (Paragraph 3.6.11) The Upper Witham IDB noted that a number of IDBs are at variance with the EA in relation to the River Witham CFMP.
- (Section 4.19, 4.20 etc) Make reference to watercourse work needing to be completed with thought and full consultation with the drainage authority and appropriate IDB.

### ***Comments Related to the Core Strategy***

- No comments made.

### ***Other Comments***

- No other comment made.

### **Action Taken**

All key points raised above in relation to the GI Strategy and GI Audit & Assessment were considered and addressed as appropriate in the preparation of the final study reports.



**APPENDIX A6**  
**AGRICULTURAL LAND CLASSIFICATION (POST 1988 SURVEY DATA)**

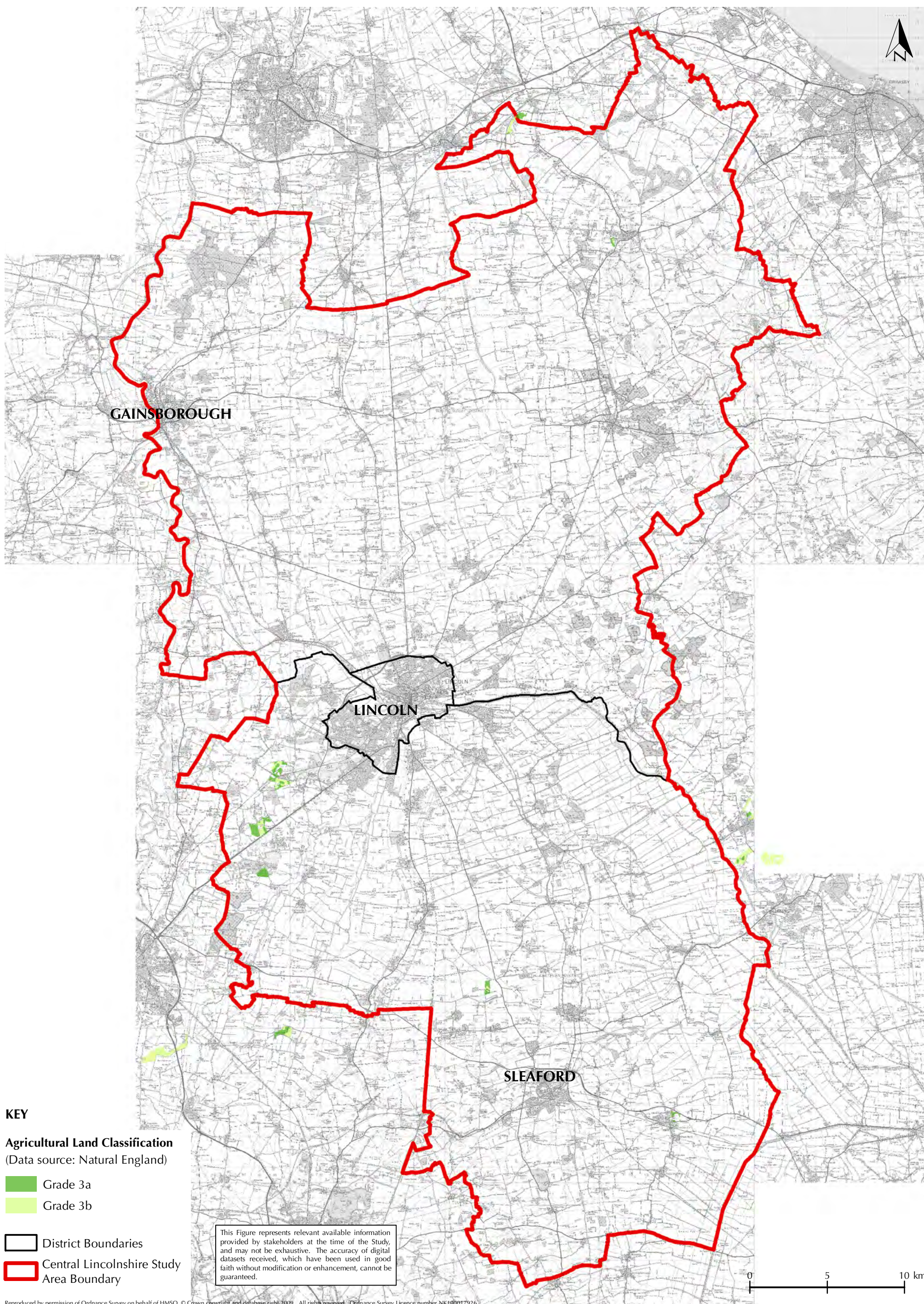
## AGRICULTURAL LAND CLASSIFICATION (POST 1988 SURVEY DATA)

Land quality varies from place to place. The Agricultural Land Classification (ALC) provides a method for assessing the quality of farmland to enable informed choices to be made about its future use within the planning system. It helps underpin the principles of sustainable development.

The ALC system classifies land into five grades, with Grade 3 subdivided into Subgrades 3a and 3b. The best and most versatile land is defined as Grades 1, 2 and 3a by policy guidance (see PPS7). This is the land which is most flexible, productive and efficient in response to inputs and which can best deliver future crops for food and non-food uses such as biomass, fibres and pharmaceuticals. Current estimates are that Grades 1 and 2 together form about 21% of all farmland in England; Subgrade 3a contains a similar amount.

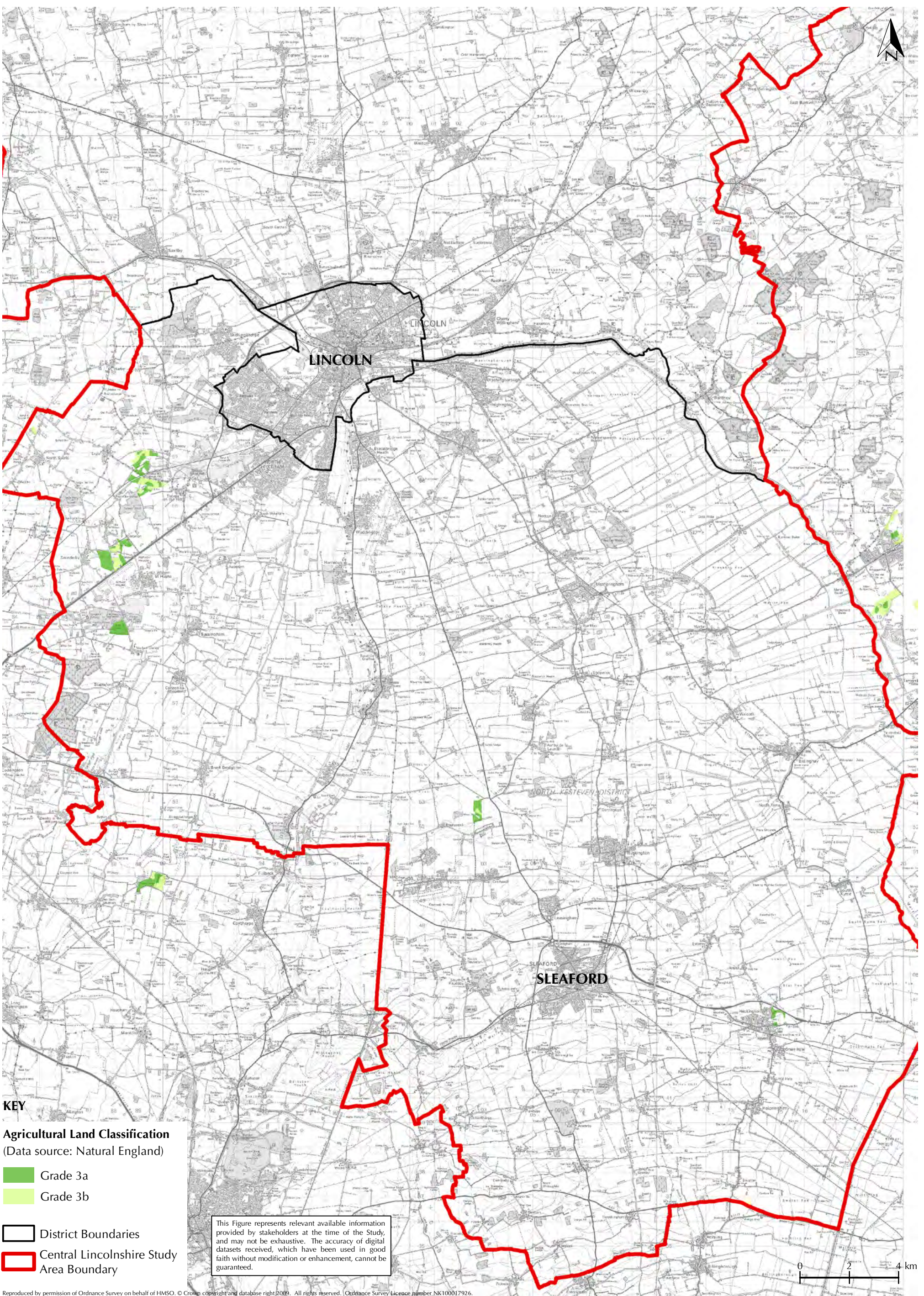
Grade 3 land was sub-divided into Grade 3a and 3b following new guidelines introduced in 1988. In some parts of the country, including Central Lincolnshire, only very small percentages of the land have been surveyed under the modern criteria (post 1988 survey data). **Figure A6a-b** illustrates the full extent of the Post-1988 ALC survey data for Central Lincs.





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**CHRIS BLANDFORD ASSOCIATES**  
environment landscape planning

NOVEMBER 2011

**GREEN INFRASTRUCTURE STUDY FOR CENTRAL LINCOLNSHIRE**  
Volume 2: Audit & Assessment

**FIGURE A6b**  
Agricultural Land Classification  
(Post 1988 Survey Data) -  
Zoomed in on Lincoln and Sleaford



**APPENDIX A7**  
**LINCOLN TOWNSCAPE AND GROWTH POINT CHARACTER AREA NAMES**

## LINCOLN TOWNSCAPE AND GROWTH POINT CHARACTER AREA NAMES

The name and reference number of all 108 Lincoln Townscape Character Areas and 30 Lincoln Growth Point Character Areas shown on **Figure 2.8** are listed respectively in **Table A7.a** and **A7.b**.

**Table A7.a: Lincoln Townscape Character Area Names**

Ref	Character Area Name	Ref	Character Area Name	Ref	Character Area Name
1	Hawkshead	38	Steep Hill and The Strait	75	Witham to High Street
2	Ermine West Estate	39	Lindum Hill	76	St. Botolph's
3	Ermine East Estate	40	Fosdyke North	77	Sincil Bank South
4	Honington	41	Arboretum	78	Birchwood Estate
5	Glebe Park	42	Sherbrooke	79	St. Andrew's
6	St. Francis Yarborough	43	Arboretum Avenue	80	Hospital Plantation
7	Dunkirk	44	Milman Road to Frederick Street	81	Almond Avenue-Westwood Drive
8	Radial Roads	45	Lincoln College	82	Almond Crescent-Westwood
9	Burton Ridge	46	Hillside Avenue	83	Birchwood Fringe
10	Burton Fields	47	West Parade & Beaumont Fee North	84	Swanpool Garden Suburb
11	St. Giles	48	Orchard Street	85	South Common
12	Bunkers Hill	49	Boultham Mere	86	Western-Huntlea
13	St. George's	50	St. Hugh's	87	Hartsholme Park
14	Broadway	51	Spa Street to Devon Street	88	South Common Fringe
15	Newport	52	Monk's Abbey	89	Hartsholme Estate
16	Burton Road	53	Newland	90	Birchwood Modern Suburb
17	Lee Road & Queensway	54	Monks Road to Winn Street	91	Skellingthorpe
18	Northgate and Church Lane	55	Campus Village	92	Boultham Park
19	Greetwell Quarry Character Area	56	High Street	93	Newark Road
20	West Common	57	Free School Lane	94	Turner
21	Chapel Lane	58	St. Rumbold's	95	Moorland
22	Outer Circle Road Industrial	59	Brayford	96	Boultham Moor Industrial
23	Yarborough Road	60	Stamp End	97	Swanholme Lakes
24	James Street and East Bight	61	Sincil Street	98	St. Peter's Avenue
25	Eastgate	62	Lincoln University South	99	Ancaster
26	Bailgate and Castle Hill	63	Witham East	100	Doddington Road Industrial
27	Castle	64	Norman Street	101	Upper Witham Valley
28	The Lawn	65	Great Northern Terrace Industrial	102	Swallow Beck
29	Hospital & Prison	66	Central Station	103	Bracebridge
30	West Parade	67	Tentercroft Street	104	Radial Roads South
31	Cathedral and Close	68	Tritton Road Industrial	105	Doddington Road South Residential
32	Lindum Terrace	69	St. Peter at Gowts	106	Hykeham Road West
33	Drury Lane	70	Skewbridge	107	Hykeham Road East
34	Tower Estate	71	Cow Puddle	108	Brant Road
35	Alexandra Terrace	72	Sincil Bank North		
36	Carholme Road	73	Sincil Dyke West		
37	Spring Hill	74	St. Matthew's		

**Table A7.b: Lincoln Growth Point Character Area Names**

<b>Ref</b>	<b>Character Area Name</b>
1	Eddystone and Coniston Drive
2	Lichfield Road Housing
3	Bracebridge Heath Centre and Linear Development
4	Witham Valley
5	Hawthorn Avenue
6	Station and Brant Road Linear Development
7	Bracebridge Heath & Waddington Escarpment
8	Meadow Way Housing
9	Ridge View Road Housing
10	Bracebridge Heath Industrial
11	Canwick & Bracebridge Enclosed Heath
12	Swanpool & Skewbridge
13	Riseholme Fields
14	Riseholme Campus
15	Greetwell
16	Witham East
17	South Escarpment
18	Canwick Village
19	Richmond Lakes & Whisby
20	Swanholme Industrial
21	Dore Avenue
22	Wetherby Crescent
23	Newark Road Linear Development
24	Lincoln Road Linear Development
25	Mill Moor Way Housing Estate
26	Newark Road Residential Estates
27	South Hykeham Industrial
28	Elizabeth Avenue
29	St Aiden's Park Housing Estate
30	North Hykeham Fields



## **APPENDIX A8**

### **HISTORIC LANDSCAPE CHARACTER INFORMATION**

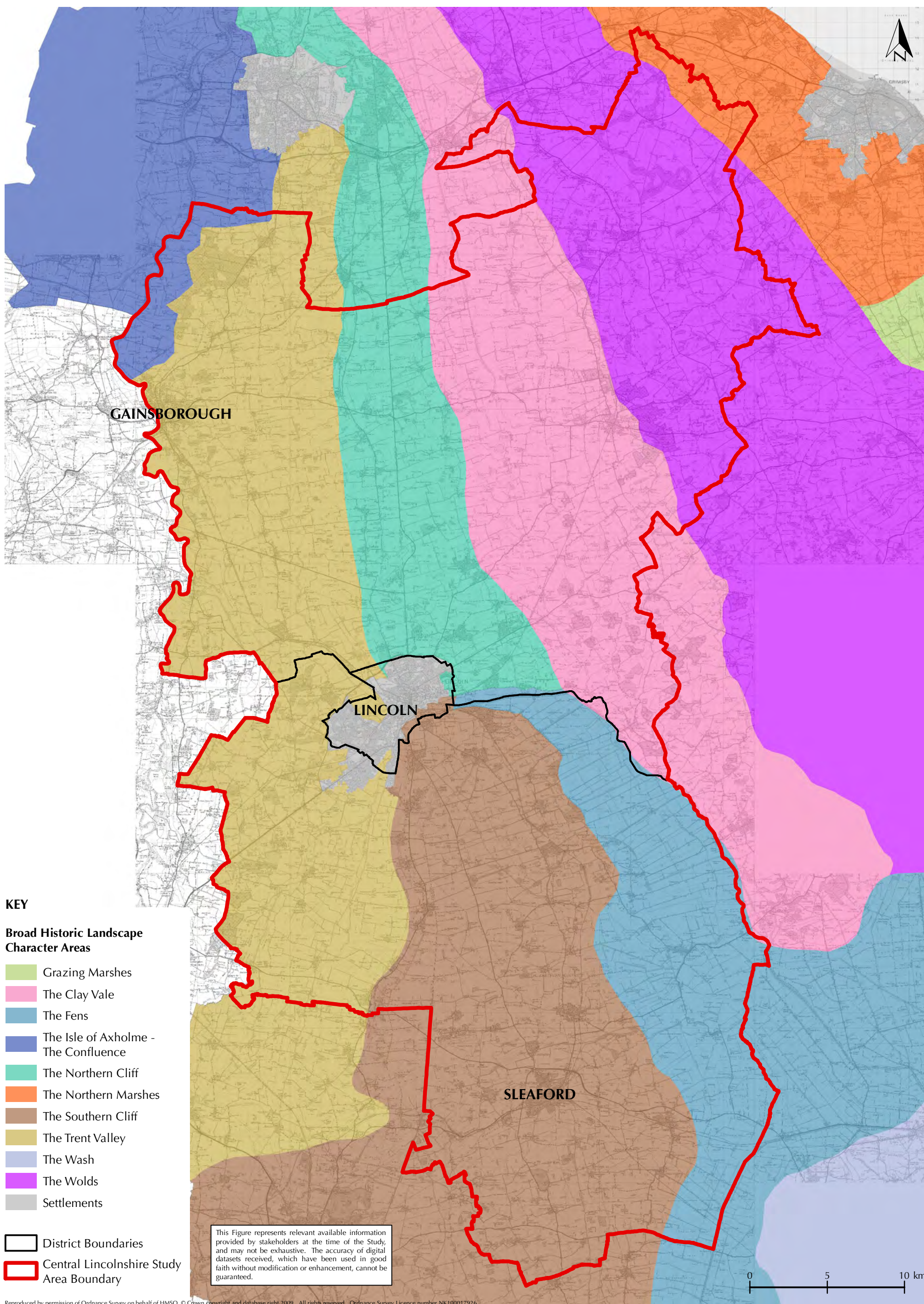
## HISTORIC LANDSCAPE CHARACTER INFORMATION

The Lincolnshire Historic Landscape Characterisation (HLC) Study has identified 85 HLC Types (see list below) and 11 Broad HLC Areas within Central Lincolnshire (see **Figure A8a**). Statements for each of the Character Areas form part of the final report (for further details see the Historic Character of the County of Lincolnshire, English Heritage Project No.4661 Main. September 2011, J.Lord & A. MacIntosh LCC with contributions from A. Partington)

### HLC Types

Allotments	Medical
Ancient Enclosure	Medieval High Status Residence
Ancient/Semi Natural Woodland	Medieval Religious Complex
Artificial Open Water	Medieval Village Earthworks
Barracks	Military Airfield
Brick and Tile Works	Military Other
Car Parks	Missile Base
Caravan Parks	Modern Fields
Cemeteries	Municipal
Chalk Pits	Natural Open Water
Chemical Works	Nature Reserves
Civil Airports/Airfields	Nurseries
Country House	Offices
Crop Storage	Orchards
Cuttings and Embankments	Ordnance Depot
Derelict Industrial Land	Ornamental Open Water
Detached Housing (C18th)	Other Factory
Detached Housing (C19th)	Other Industrial Works
Detached Housing (C20th)	Other Woodland
Educational	Paddocks and Closes
Estate Buildings	Parliamentary Planned Enclosure
Estate Fields	Planned Residential Development
Estate Woodland	Plantation Woodland
Fish Farm	Post 1960s Semi Detached Housing
Flats and Apartments	Pre 1960s Semi Detached Housing
Formal Gardens	Private Enclosure from Woodland
Fox Coverts	Private Planned Enclosure
Golf Course	Public Transport Station
High Street Shops	Recreation Ground
Historic Settlement Core	Reinstated Land
Industrial Estate	Religious
Ironstone Quarry	Religious Foundations
Isolated Farmstead	Re-organised Piecemeal Enclosure
Junction	Sand and Gravel Quarry
Kitchen Gardens	Service Station
Landfill	Sidings
Landscape Park	Terraced Housing (C18th)
Large Retail Outlets	Terraced Housing (C19th)
Leisure	Terraced Housing (C20th)
Limestone Quarry	Village Farmstead
Livestock Rearing	Warehouses and Distribution
Marsh	Water Meadow
Marshland	





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**APPENDIX A9**  
**OPEN SPACE, SPORT AND RECREATION**  
**GIS DATA CAPTURE METHODOLOGY**

# OPEN SPACE, SPORT AND RECREATION GIS DATA CAPTURE METHODOLOGY

## Study Areas

North Kesteven and West Lindsey District Councils.

## Background

There are currently data gaps with respect to open space, sport and recreation sites/spaces in the Districts of North Kesteven and West Lindsey. The scope of the Central Lincolnshire Green Infrastructure Study therefore required CBA to carry out a PPG17<sup>1</sup> compliant desk-top audit for these two Districts. It was outside the scope of the Brief to carry out ground verification. Whilst a full PPG17 Study has not yet been prepared for the City of Lincoln, a desk-top audit of sites/spaces has been completed and mapped. In order to create a consistent open space, sport and recreation (PPG17) dataset/layer for Central Lincolnshire as a whole, it was agreed that the general approach adopted for the City of Lincoln would form the basis of the methodology used to audit the Districts of North Kesteven and West Lindsey.

## Defining a Typology

The overarching open space, sport and recreation typology shown in the **Table A9a**, which is consistent with the typology used by the City of Lincoln<sup>2</sup>, was used to identify and categorise the different types of sites/spaces that formed part of the audit exercise.

The typology includes both public and private assets, with and without public access in urban and rural locations. A number of sites/spaces are multi-functional and could in theory fall within several of the defined types. In line with the Government Guidance in 'Assessing Needs and Opportunities, a Companion Guide to Planning Policy 17'<sup>3</sup>, the concept of 'primary purpose' has been adopted so that each site/space is counted only once in the audit of provision.

**Table A9a: Open Space, Sport and Recreation Typology**

Type	Primary Purpose (as defined in the PPG17 Companion Guide)	Definition (as defined by the Lincoln City)	Example of sites
Parks and gardens	<i>Accessible, high quality opportunities for informal recreation and community events.</i>	<i>Areas of open space specifically designed for public access and enjoyment and combining a variety of landscape and horticultural elements and facilities for the public. May incorporate sports facilities and/or play areas and cultural/historical features.</i>	<ul style="list-style-type: none"><li>* Historic parks and gardens</li><li>* Country parks</li><li>* Urban parks</li></ul>
Natural and semi-natural greenspaces	<i>Wildlife conservation, biodiversity and environmental education and awareness.</i>	<i>Open space that is made up of natural and semi-natural habitat. These habitats include areas formed by the natural processes of colonisation and succession. These sites are usually of significant landscape and nature conservation value.</i>	<ul style="list-style-type: none"><li>* Woodland and scrub</li><li>* Grassland</li><li>* Wetlands</li><li>* Open water</li><li>* Bare rock habitats (e.g. cliffs and quarries)</li><li>* Existing sites of national and local biodiversity importance and interest</li></ul>

<sup>1</sup> Planning Policy Guidance Note 17: 'Planning for Open Space, Sport and Recreation' (ODPM - now CLG, 2002)

<sup>2</sup> Open space within Lincoln has been categorised based on a typology adapted from the Government Guidance in 'Assessing Needs and Opportunities, a Companion Guide to Planning Policy 17' (ODPM 2002)

<sup>3</sup> Assessing Needs and Opportunities, a Companion Guide to Planning Policy 17' (ODPM- now CLG, 2002)

Type	Primary Purpose (as defined in the PPG17 Companion Guide)	Definition (as defined by the Lincoln City)	Example of sites
Green corridors	<i>Walking, cycling or horse riding, whether for leisure purposes or travel, and opportunities for wildlife migration.</i>	<i>Greenspace forming a strategic green link from the heart of the city to the open countryside<sup>4</sup>, i.e. designated green wedges.</i>  <i>As green wedges are a policy designation and can include a number of different types of open space, sport and recreation spaces/sites, they have not been mapped as part of green corridors.</i>	<ul style="list-style-type: none"> <li>* Disused/dismantled railways</li> <li>* Railway Corridors</li> <li>* Public Rights of Way</li> <li>* Cycle Network</li> <li>* Permissive Routes</li> <li>* Rivers/canals and their banks</li> </ul>
Outdoor sports facilities	<i>Participation in outdoor sports, such as pitch sports, tennis, bowls, athletics or countryside and water sports.</i>	<i>Open space designed to accommodate practice, training and competition of outdoor sports.</i>	<p>This type is considered to include natural and artificial surfaces used for sports and recreation. Examples include:</p> <ul style="list-style-type: none"> <li>* Recreational grounds</li> <li>* Sports pitches</li> <li>* School and other institutional playing fields</li> <li>* Athletic tracks</li> <li>* Outdoor bowling greens</li> <li>* Outdoor tennis courts</li> <li>* Other outdoor sports areas.</li> </ul>
Built facilities for Sport	<i>Not listed as a separate type in the PPG17 Companion Guide Typology but referred to in the main body of the guide. Forms part of The City of Lincoln typology.</i>	<i>Indoor facilities for sport and recreation, including swimming pools, indoor sports halls and leisure centres, indoor bowls centres, indoor tennis centres, ice rinks, community centres and village halls.</i>	<ul style="list-style-type: none"> <li>* Sports halls</li> <li>* Swimming pools</li> <li>* Indoor bowling greens</li> <li>* Health and fitness/leisure centres</li> <li>* Indoor tennis courts</li> <li>* Squash courts</li> <li>* Village/community halls</li> </ul>
Amenity greenspaces	<i>Opportunities for informal activities close to home or work or enhancement of the appearance of residential or other areas.</i>	<i>Areas of greenspace that, although accessible for public enjoyment, have no clear recreation function.</i>	<ul style="list-style-type: none"> <li>* Housing greenspaces</li> <li>* Village greens</li> </ul> <p>It should be noted that road verges within the Districts of North Kesteven and West Lindsey have only been mapped within the towns of Gainsborough and Sleaford - where an</p>

<sup>4</sup> May encompass a series of linear features such as railways and dis-used railways, roads, canals and rivers but also agricultural land, woodland, parks, cemeteries, playing fields, commons and allotments. Green corridors safeguard the line and character of important views into and out of the city, encourage the movement of wildlife and provide opportunities for leisure.

Type	Primary Purpose (as defined in the PPG17 Companion Guide)	Definition (as defined by the Lincoln City)	Example of sites
			identifiable boundary was present on the 1:10,000 OS basemap
Play provision for children and young people	<i>Areas designed primarily for play and social interaction involving children and young people, such as equipped play areas, balls courts, skateboard areas and teenage shelters.</i>	<i>As per Primary Purpose.</i>	* Equipped areas of play * Informal recreation activities, which might include facilities such as skateboard parks, basketball courts and 'free access' Multi Use Games Areas (MUGAs).
Allotments, community gardens, urban farms	<i>Opportunities for these people who wish to do so to grow their own produce as part of the long term promotion of sustainability, health and social inclusion.</i>	<i>Areas of land which are cultivated for vegetable or fruit crops.</i>	* Statutory and non-statutory allotment sites * Community gardens
Cemeteries, churchyards and disused burial grounds	<i>Quiet contemplation and burial of the dead, often linked to the promotion of wildlife conservation and biodiversity.</i>	<i>Land used for, and once used for, the burial of the dead.</i>	* Cemeteries * Churchyards * Other burial grounds
Civic squares and spaces	<i>Providing a setting for civic buildings, and opportunities for open air markets, public demonstrations and civic/community events.</i>	<i>As per Primary Purpose.</i>	* Civic squares * Other public squares * Pedestrianised spaces
Common Land (listed separately in the City of Lincoln's typology)	Not listed as a separate type in the PPG17 Companion Guide Typology	Common land is usually in private ownership that has rights of common over it.	* Registered common land

NB: The City of Lincoln includes Brownfield Land as a separate type within their overall open space, sport and recreation typology. However, a number of the sites/spaces within the dataset provided (which came separately to the open space, sport and recreation dataset) overlap with sites/spaces already categorised, according to their primary function, as another type of open space, sport and recreation. Brownfield Land was therefore excluded as an individual type.

### Using a Geographical Information System (GIS)

Open space, sport and recreation sites/spaces were recorded using ArcMap10, a Geographical Information System (GIS). Where digital boundaries for sites/spaces already existed, these were switched on as provided by data holders (see **Using Existing Datasets**). Where the digital boundary for a site/space did not already exist, it was digitised by CBA (see **Digitising Site Boundaries**). An attribute table, linked to individual sites/spaces, was created and where available, the following information for individual sites/spaces was recorded in the attribute table:

- Site name and reference
- Type

- Source
- Area
- Longitude/latitude
- Accessibility
- Contact

### Using Existing Datasets

A review of available GIS datasets was undertaken in order to identify which ones, if any, could be switched on to display sites/spaces which fall within the individual types of the overarching open space, sport and recreation typology. **Table A9.b** shows each individual dataset that was used and the type it represents. It should be noted that the scale at which the boundary of sites/spaces were digitised at in individual datasets differs.

**Table A9.b: Datasets Used to Display Open Space, Sport and Recreation Sites/Spaces**

Name of dataset	Type
City of Lincoln Open Space, Sport and Recreation - parks and gardens type	Parks and gardens
Registered parks and gardens of national historic interest	Parks and gardens
West Lindsey historic parks and gardens	Parks and gardens
Country parks	Parks and gardens
National Trust land	Parks and gardens
City of Lincoln Open Space, Sport and Recreation dataset - natural and semi-natural greenspaces type	Natural and semi-natural greenspace
Access land (excluding commons)	Natural and semi-natural greenspace
Woodland Trust access land	Natural and semi-natural greenspace?
Forestry Commission woodland	Natural and semi-natural greenspace
National Forestry Inventory	Natural and semi-natural greenspace
Ancient woodland	Natural and semi-natural greenspace
North Kesteven, West Lindsey and City of Lincoln wildlife sites and sites of nature conservation interest	Natural and semi-natural greenspace
National Biodiversity Action Plan Priority Habitats	Natural and semi-natural greenspace
Local nature reserves	Natural and semi-natural greenspace
National nature reserves	Natural and semi-natural greenspace
SSSIs	Natural and semi-natural greenspace
SPAs	Natural and semi-natural greenspace
SACs	Natural and semi-natural greenspace
Ramsars	Natural and semi-natural greenspace
Lincolnshire Wildlife Trust nature reserves	Natural and semi-natural greenspace
Roadside nature reserves	Natural and semi-natural greenspace
Lakes and Water bodies	Natural and semi-natural greenspace
Woodland and scrub	Natural and semi-natural greenspace
Main rivers and canals	Green Corridors
(Main) Drains	Green Corridors
Railway corridors	Green Corridors
Public Rights of way network	Green Corridors
Permissive routes	Green Corridors
Cycling routes	Green Corridors
Viking Way	Green Corridors
Promoted routes	Green Corridors
City of Lincoln Open Space, Sport and Recreation dataset –outdoor sports facilities type	Outdoor sports facilities

Name of dataset	Type
Hazelwood Ski World Boundary from City of Lincoln	Outdoor sports facilities
Active places power data	Outdoor sports facilities (point data only was provided (site boundaries digitised by CBA)
City of Lincoln Open Space, Sport and Recreation dataset - built facilities for sport type	Outdoor sports facilities
Active places power data	Built Facilities for Sport (point data only was provided (site boundaries digitised by CBA)
City of Lincoln Open Space, Sport and Recreation dataset –amenity greenspace type	Amenity greenspace
North Kesteven commons, village greens and housing open space (all sites excluding commons)	Amenity greenspace
City of Lincoln Open Space, Sport and Recreation dataset – play provision for children and young people type	Play provision for children and young people
City of Lincoln Open Space, Sport and Recreation dataset - allotments, community gardens and urban farms type	Allotments, community gardens and urban farms
City of Lincoln Open Space, Sport and Recreation dataset - cemeteries, churchyards and disused burial grounds type	Cemeteries, churchyards and disused burial grounds
City of Lincoln Open Space, Sport and Recreation dataset - civic squares and spaces type	Civic squares and spaces
North Kesteven commons	Common Land
City of Lincoln Open Space, Sport and Recreation dataset – common land type	Common Land
Registered common land	Common Land

### Digitising Site Boundaries

Where the digital boundary of a site/space did not already exist, it was mapped/digitised using GIS and 1:10,000 digital Ordnance Survey (OS) base-mapping at a scale of at least 1:5,000. The location of appropriate sites/spaces was identified through reports/websites, stakeholders and google earth (a virtual globe, map and geographical information program). The individual boundaries of sites/spaces were either determined through maps provided in reports/websites and stakeholders or interpreted from google earth/OS maps.

### Using Reports/Websites

Available reports/websites (including those listed in Appendix 3 of the Brief) were reviewed and, where appropriate, used to supplement the audit of open space, sport and recreation provision. **Table A9c** lists the individual reports/websites that were used identify the location (and in some cases the boundary) of appropriate open space, sport and recreation sites/spaces.

**Table A9c – Reports/Websites Used to Identify Open Space, Sport and Recreation Sites/Spaces**

Name of Report/Website	Type	Note
County Sports Facilities Framework (Lincolnshire Sports Partnership, December 2008)	Outdoor sport facilities (including synthetic turf pitches, synthetic athletic tracks, outdoor bowling greens, outdoor tennis courts, golf courses, playing pitches)	Name and address of sites/facilities provided but no boundaries. Boundaries identified using google earth/1:10,000 OS base-mapping.  CBA was unable to locate the following sport facilities listed in the County Sports Facilities Framework: * Aisby Walk Playing fields (playing



Name of Report/Website	Type	Note
	Built facilities for sport (including sports halls, indoor swimming pools, indoor bowling greens, health and fitness, indoor tennis courts, squash courts, village/community halls)	<p>pitches)</p> <ul style="list-style-type: none"> <li>* Blankney cricket club (playing pitches)</li> <li>* Caistor Tennis Club (outdoor tennis)</li> <li>* Cherry Willingham Courts (outdoor tennis)</li> <li>* Glentham Playing Fields (playing pitches)</li> <li>* Lincoln road playing field (playing pitches)</li> <li>* North Kelsey Court (outdoor tennis)</li> <li>* Reepham Tennis Club (outdoor tennis)</li> <li>* Sudbrooke TC (outdoor tennis)</li> <li>* Tealby BC (outdoor bowling)</li> <li>* Tealby Tennis Club (outdoor tennis)</li> <li>Todmoor Playing Field (playing pitches)</li> <li>* Tiger Health and Fitness (health and fitness)</li> <li>* Trent Valley Academy (sports hall and health and fitness)</li> <li>* Washingborough BC (outdoor bowling)</li> <li>* Sick Willoughby Village Hall</li> <li>* Bishop Norton Village Hall</li> <li>* Brattleby, Aisthorpe and Scampton Village Hall</li> <li>* Dunholme Old School Centre</li> <li>* Faldingworth Memorial Hall</li> <li>* Holton le Moor Moot Hall</li> <li>* Keelby Vilage hall</li> <li>* Kettlethorpe Village Hall</li> <li>* Knaith Village Hall</li> <li>* Market Rasen Festival Hall</li> <li>* Middle Rasen Village Hall</li> <li>* Nettleham Village Hall</li> <li>* Southrey Village Hall</li> <li>* South Kelsey Village Hall</li> </ul>
All Play in West Lindsey 2007-12, Final Draft (West Lindsey Play Partnership)	Play provision for children and young people	<p>Name and address of sites/facilities provided but no boundaries. Boundaries identified using google earth/1:10,000 OS base-mapping. CBA was unable to locate the following play facilities listed in the Play Strategy:</p> <ul style="list-style-type: none"> <li>* 3 play areas in Scotter</li> <li>* 2 play areas in Waddingham</li> <li>* 3 play areas in Saxilby with Ingleby</li> <li>* 1 play area in Nettleham</li> <li>* 1 play area in Ingham</li> <li>* 2 play areas in Cherry Willingham</li> <li>* 1 play area in Fiskerton</li> <li>* 1 play area in Great Limber</li> <li>* 1 play rea in Marton and Gate Burton</li> </ul>

Name of Report/Website	Type	Note
		<ul style="list-style-type: none"> <li>* 1 play area in Morton</li> <li>* 1 play area in Scothern</li> <li>* 1 play area in Lyborough</li> <li>* 1 play area Broadholme</li> <li>* 1 play area Calxby</li> <li>* 1 play area in Fillingham</li> <li>* 1 play area Fillingham</li> <li>* 1 pay area in Holton-le-Moor</li> <li>* 1 play area in Laughton</li> <li>* 1 play area in Brookenby</li> <li>* 1 play area Kettlethorpe and laughterton</li> <li>* 1 play area in Stow</li> <li>* 1 play area in Thoresway</li> </ul>
North Kesteven's Play Strategy 2007-12 (North Kesteven Play Partnership)	Play provision for children and young people	<p>Name and address of sites/facilities provided but no boundaries. Boundaries identified using google earth/1:10,000 OS base-mapping.</p> <p>CBA was unable to locate the following play facilities listed in the Play Strategy:</p> <ul style="list-style-type: none"> <li>* 1 play area in Beckingham</li> <li>* 1 play area in Evedon</li> <li>* 1 play area in Helpringham?</li> </ul>
Natural World Centre, Whisby: <a href="http://www.n-kesteven.gov.uk/VenueDetails.aspx?venuecode=370">http://www.n-kesteven.gov.uk/VenueDetails.aspx?venuecode=370</a> <a href="http://www.naturalworldcentre.co.uk/">http://www.naturalworldcentre.co.uk/</a>	Natural and semi-natural greenspace	<p>Website provided by Brooke Smith.</p> <p>Boundary identified using map provided on website/1:10,000 OS base-mapping.</p>
Hill Holt Wood: <a href="http://hillholtwood.com/">http://hillholtwood.com/</a>	Natural and semi-natural greenspace	<p>Website provided by Brooke Smith.</p> <p>Boundary identified using map google earth/1:10,000 OS base-mapping.</p>
North Kesteven general information about parks and open spaces:  <a href="http://www.n-kesteven.gov.uk/section.asp?docId=2147">http://www.n-kesteven.gov.uk/section.asp?docId=2147</a>	<p>Natural and semi-natural greenspace</p> <p>Parks and Gardens Play provision for children and young people</p>	<p>Website provided by Brooke Smith.</p> <p>Boundaries identified using google earth/1:10,000 OS base-mapping.</p>
Sleaford Town Council's open spaces information: <a href="http://www.sleaford.gov.uk/openspaces.html">http://www.sleaford.gov.uk/openspaces.html</a>	<p>Parks and Gardens</p> <p>Play provision for children and young people</p> <p>Natural and semi-natural greenspace</p>	<p>Website provided by Brooke Smith.</p> <p>Boundaries identified using google earth/1:10,000 OS base-mapping.</p>
North Hykeham Town Council website: <a href="http://parishes.lincolnshire.gov.uk/northhykeham/">http://parishes.lincolnshire.gov.uk/northhykeham/</a>	Allotments, community gardens, urban farms and agricultural land (in urban area only)	<p>Website provided by Brooke Smith.</p> <p>Boundaries identified using google earth/1:10,000 OS base-mapping.</p>

Name of Report/Website	Type	Note
<a href="http://parishes.lincolnshire.gov.uk/northhykeham/section.asp?catId=12665">http://parishes.lincolnshire.gov.uk/northhykeham/section.asp?catId=12665</a>	Cemeteries, churchyards and disused burial grounds	
West Lindsey District Council Sport and Leisure Facilities: <a href="http://www.west-lindsey.gov.uk/visitors/-leisure/sport-and-leisure/sport-and-leisure-facilities/">http://www.west-lindsey.gov.uk/visitors/-leisure/sport-and-leisure/sport-and-leisure-facilities/</a>	Parks and Gardens	Boundaries identified using google earth/1:10,000 OS base-mapping
West Lindsey District Council cemeteries and funerals: <a href="http://www.west-lindsey.gov.uk/residents/births-marriages-death-and-civil-partnerships/registering-a-death/cemeteries-and-funerals/104074.article">http://www.west-lindsey.gov.uk/residents/births-marriages-death-and-civil-partnerships/registering-a-death/cemeteries-and-funerals/104074.article</a>	Cemeteries, churchyards and disused burial grounds	Boundaries identified using google earth/1:10,000 OS base-mapping
Family Services Directory, map showing LCC offices in Sleaford: <a href="http://www.thisisartlincs.org.uk/section_popup.asp?objectid=1753&amp;object=IMAGE&amp;catid=1927&amp;docid=29063&amp;close=0">http://www.thisisartlincs.org.uk/section_popup.asp?objectid=1753&amp;object=IMAGE&amp;catid=1927&amp;docid=29063&amp;close=0</a>	Civic spaces  Parks and Gardens	Boundaries identified using google earth/1:10,000 OS base-mapping

### Information Provided by Stakeholders

A number of individuals provided either maps or names of open space, sport and recreation sites/spaces. The information provided is listed in **Table A9d**.

**Table A9d: Information Provided by Stakeholders**

Name and Job Title	Site and Type	Note
Anna Grieve - Contracts Officer, West Lindsey District Council	*Holme Walk Leisure Centre (built facilities for sport) *Marlow road footpath (amenity greenspace) *Daines road amenity area (amenity greenspace) *Queensfield football field (outdoor sports facilities) *footpath, Highfield road/Corringham road (amenity greenspace)	Boundary of sites/spaces shown on a map emailed to CBA.
Rachel Aylmer – Business Development Manager, Children’s Links	Sites which Children’s Links delivered play rangers on in West Lindsey District (not including schools) (all classified as play provision for children and young people): *Bardney playing fields –Horncastle Road *Caistor play park – South Street *Fiskerton – park *Gainsborough Scouts Hill *Hemswell – village hall and play area DN21 5UL *Ingham – park, High Street West LN21 2XT *Langworth – memorial hall and field, main street LN5 5BB *Morton – village hall field DN21 3AL *Newton on Trent - playing field Dunham Close *Saxilby – rec	The name of sites/spaces were provided but no boundaries/maps.  Boundaries identified using google earth/1:10,000 OS base-mapping  The following play facilities could not be located: *Brockenby – village green *Corringham playing field – Recreation Avenue *Glenthams – village hall field LN8 2EU *Laughton – cricket pitch *Newtoft – playing field

Name and Job Title	Site and Type	Note
	*Scotter –playing field *South Kelsy –play park, Waddingham Road *Sturton by Stow –playing field *Willoughton –playing fields  Other play areas Ms Aylmer knew of (all classified as play provision for children and young people): *Welton – one playing field off Ryland Road and another on Hackthorn Road at LN2 3PA *Dunholme playing field behind village hall LN2 3SU	Washington Drive LN8 3NN *North Kelsy –playing field *Scothern playing field at village hall LN2 2UJ
Sites marked on maps by stakeholders who attended the GI Workshop (9/06/11)	*Pottergate golf course *Disused railway east of Lincoln	Boundaries identified using google earth/1:10,000 OS base-mapping  The boundary of Hazelwoods Club water-ski Club could not be located
Mike Lock – Client Officer North Kesteven District Council	*Steeple and Spires routes (green corridor)	Map of the route provided.
Sue Chambers – Parish Partnership Officer North Kesteven District Council	*Branston and Mere playing field (playing pitches) *Bristol BC (outdoor bowling) *Heckington TC (outdoor tennis) *Northgate sports hall (indoor sport facilities) *Skellingthorpe courts (outdoor tennis) *Sleaford Rugby Club (playing pitches) *Sleaford Town BC (outdoor bowling) *Bassingham Village Hall *Ewerby Village Hall *North Kyme Village Hall *North Scarle Village Hall *Wilsford Village Hall *A play area in Dunston *A play area in Heckington *A play area in Kirkby La Thorpe *A skate park in Sleaford Road *Sleaford Town Football Club Ground (outdoor sport) *Digby allotments *Dunston outdoor playing fields, soccer pitches and bowls	The name of sites/spaces were provided and marked on maps. In some cases, due to the large scale of the OS base map on which sites were marked up, boundaries were identified using google earth/1:10,000 OS base-mapping.  The following sites could not be located: *Lincoln road playing field *Washingborough outdoor bowling *Silk Willoughby village hall *A play area in Beckingham *A play area in Evedon *A play area in Helpringham *Greylees – new housing estate

### Using OS Maps and Google Earth

1:25,000 hard copy OS maps, 1:10,000 digital OS base-mapping and google earth were used to identify the location and boundary of a number of sites/spaces. **Table A9e** lists the type of sites/spaces identified using OS maps and google earth.

**Table A9e: Sites/Spaces identified using OS Mapping and/or Google Earth**

Example of Site/Space	Type	Note
Urban park	Parks and gardens	n/a
Woodland	Natural and semi-natural greenspaces including urban woodland	n/a
Dismantled/disused railway	Green corridors	Centre line of dismantled railway buffered by CBA to create corridor.
Recreation ground, playing field, outdoor bowling, golf course	Outdoor sports facilities	n/a
Road verges, village greens etc	Amenity greenspace	In line with the City of Lincoln's audit, road verges have been mapped in Gainsborough and Sleaford. However, only road verges which were visible on google earth and had clear boundaries on the 1:10,000 OS base-mapping were digitised. Road verges in all other settlements have not been digitised.
Play area	Play provision for children and young people	In line with the City of Lincoln's audit, play areas in schools have not been digitised
Allotment	Allotments, community gardens and urban farms	n/a
Cemeteries/churchyards/disused burial grounds/graveyard	Cemeteries, churchyards and disused burial grounds	n/a
Civic square/space	Civic squares and spaces	n/a

**Internal Validation**

The data capture exercise was validated through internal spot-checks.

**External validation**

Verification of the open space, sport and recreation dataset was undertaken by the Project Management Group and through consultation/stakeholder engagement.



## **APPENDIX A10**

### **KEY LEISURE AND TOURISM ATTRACTIONS**

## KEY LEISURE AND TOURISM ATTRACTIONS

Key leisure and tourism attractions within Central Lincolnshire are listed in **Table A10.a**. These are based on attractions listed on the Visit Lincolnshire website (<http://www.visitlincolnshire.com/site/things-to-do>). It should be noted that this does not suggest that other attractions and assets are of lesser importance.

**Table A10.a: Key Leisure and Tourism Attractions within Central Lincolnshire**

Name of Leisure/Tourism Asset	Location
Gainsborough Model Railway	DN21 1BE
Trinity Arts Centre	DN21 2AL
Hemswell Craft and Design Centre	DN21 5TJ
Gainsborough Golf Club	DN211PZ
Gainsborough Old hall	DN212NB
Richmond Park	DN212RJ
Blyton Ponds	DN213LE
Carholme Golf Club	LN11SE
Brayford Pool (including boat trips)	LN11YX
St Mary's Church	LN12DE
St Edith's Church	LN12DW
Lincoln Golf Club	LN12EG
Torksey Lock Interpretation Centre	LN12EH
Millfield Golf Club	LN12LB
Lincoln Castle	LN13AA
Museum of Lincolnshire Life	LN13LY
Ellis Windmill	LN13LY
Lincoln Medieval Bishop's Palace	LN2 1PU
Lincoln Arboretum	LN2 5JY
Lincoln Theatre Royal	LN21JJ
The Collection Museum	LN21LP
Usher Gallery	LN21NN
Lincoln Cathedral	LN21PX
Lincolnshire Events Centre	LN22NA
Welton Manor Golf Centre	LN23PA
St Peter's Church	LN24AA
Woodside Wildlife & Falconry Park Nature Reserve	LN35DQ
Bardney Heritage Centre	LN35UF
Canwick Park Golf Club	LN41EF
Poppyfield Equestrian Centre	LN41QQ
Blankney Golf Club	LN43AZ
Pottergate Golf Club	LN43BE
Martin Moor Golf Club	LN43BE
Metheringham Airfield Visitor Centre	LN43BQ
South Kyme Golf Course	LN44AT
RAF Coningsby Golf Club	LN44sY
Church of St Helen	LN5 0SN
Mrs Smith's Cottage Museum	LN50EP
Gridline Karting & Racing	LN58HF
Lincoln City Football Club	LN58LD
St Katherine's Heritage & Cultural Centre	LN58LN
Aubourn Hall Gardens	LN59DZ
RAF Waddington Golf Club	LN59NB
The North Kesteven Centre	LN6 9AX
Hartsholme Park	LN60EY
Lincolnshire Road Transport Museum	LN63QT
Fun Farm	LN63QU
Doddington Hall	LN64RU



<b>Name of Leisure/Tourism Asset</b>	<b>Location</b>
Lincoln Performing Arts Centre	LN67TS
Terry O'Toole Theatre	LN69AX
Hazelwood Ski World	LN69BW
Lincoln Golf Centre	LN69BW
North Scarle Miniature Railway	LN69ER
Lincoln Adventure Centre	LN69NW
Hall Farm Park	LN76PS
Caistor Equestrian Centre	LN76SD
The Garden House	LN82DQ
Owmby Golf Club	LN83AB
Market Rasen Golf Club	LN83DZ
Market Rasen Racecourse	LN83EA
Rand Farm Park	LN85ND
Goltho Gardens	LN85NF
The Grange Spa	NG34 0NF
Navigation House	NG34 7TW
Sleaford Golf Club	NG34 8PL
Cogglesford Mill	NG347EQ
The playhouse	NG347PN
St Denys Church	NG347SH
The National Centre for Craft & Design	NG347TW
Cranwell Aviation Heritage Centre	NG348QR
Heckington Village Trust Railway & Heritage Museum	NG349JJ
St Andrew's Church	NG349RW

As well as the attractions listed above, the Visit Lincolnshire website also promotes leisure and tourism 'destinations' (<http://www.visitlincolnshire.com/site/discover>) across Lincolnshire. Those of relevance to Central Lincolnshire include: waterways (e.g. the Fossdyke Canal, River Ancholme and River Witham), Lincoln City, market towns (e.g. Market Rasen, Gainsborough and Sleaford) and the Wolds AONB.

In addition, the Visit Lincolnshire website promotes a range of equestrian, walking and cycling routes as well as events/festivals (a number of which take place in Central Lincolnshire), which act to draw visitors to the area.

It should be noted that Central Lincolnshire includes a number of nature reserves in addition to those referred to in **Table A10.a**. These include the Bardney Limewoods National Nature Reserve, Greetwell Hollow, and Fiskerton Fen. See <http://www.lincstrust.org.uk> for more details.



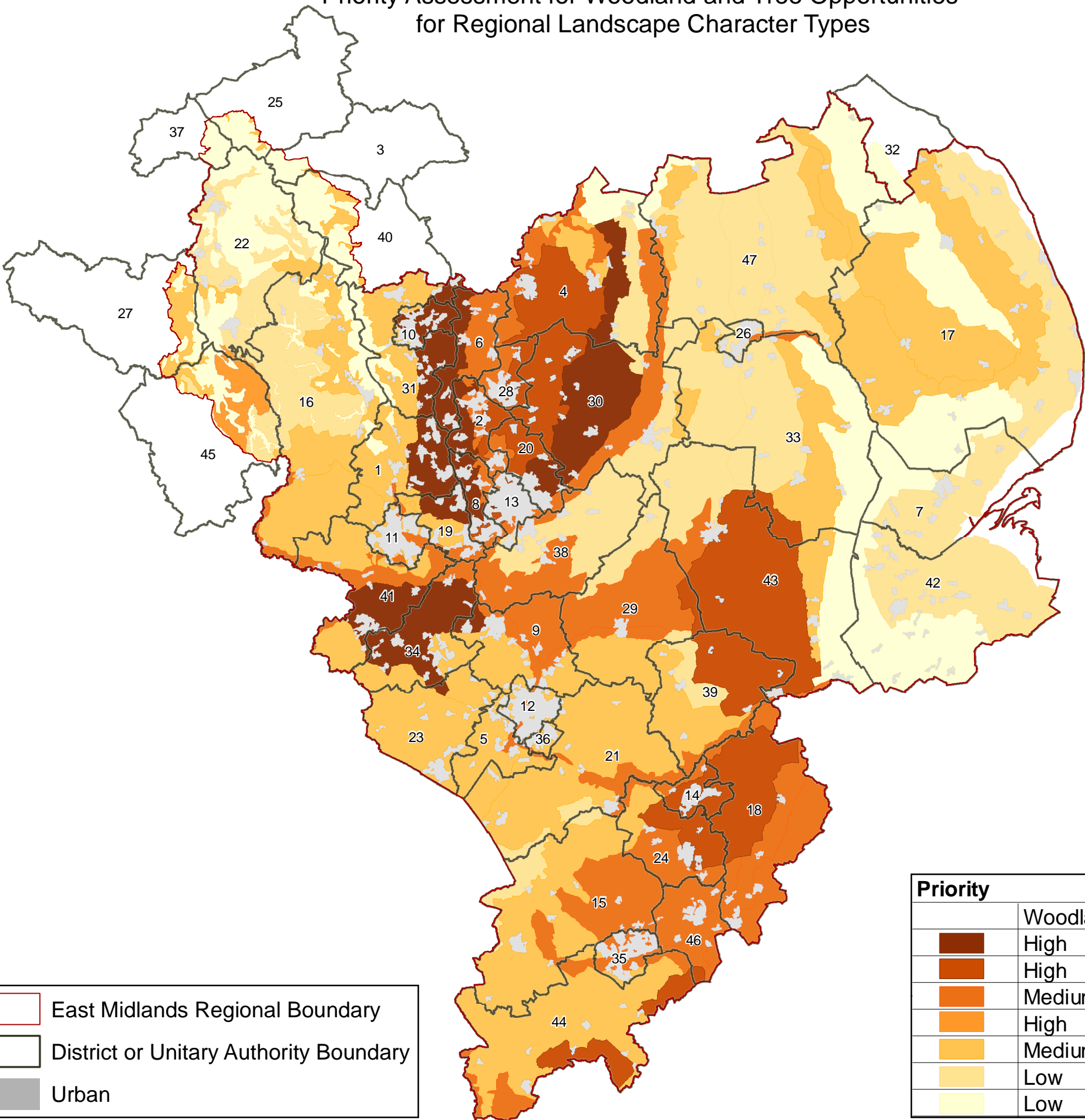
## **APPENDIX A11**

### **EASTS MIDLANDS WOODLAND OPPORTUNITY MAPPING**

(Source: East Midlands Woodland Opportunity Mapping Guidance: Phase One – A Landscape Character Led Approach. Natural England, April 2010)

# East Midlands Woodlands Opportunity Mapping Guidance

Priority Assessment for Woodland and Tree Opportunities  
for Regional Landscape Character Types



East Midlands Regional Boundary

District or Unitary Authority Boundary

Urban

[www.naturalengland.org.uk](http://www.naturalengland.org.uk)

1. Amber Valley District
  2. Ashfield District
  3. Barnsley District
  4. Bassetlaw District
  5. Blaby District
  6. Bolsover District
  7. Boston District
  8. Broxtowe District
  9. Charnwood District
  10. Chesterfield District
  11. City of Derby (UA)
  12. City of Leicester (UA)
  13. City of Nottingham (UA)
  14. Corby District
  15. Daventry District
  16. Derbyshire Dales District
  17. East Lindsey District
  18. East Northamptonshire District
  19. Erewash District
  20. Gedling District
  21. Harborough District
  22. High Peak District
  23. Hinckley and Bosworth District
  24. Kettering District
  25. Kirkless District
  26. Lincoln District
  27. Macclesfield District
  28. Mansfield District
  29. Melton District
  30. Newark and Sherwood District
  31. North East Derbyshire District
  32. North East Lincolnshire (UA)
  33. North Kesteven District
  34. North West Leicester District
  35. Northampton District
  36. Oadby and Wigston District
  37. Oldham District
  38. Rushcliffe District
  39. Rutland (UA)
  40. Sheffield District
  41. South Derbyshire District
  42. South Holland District
  43. South Kesteven District
  44. South Northamptonshire District
  45. Staffordshire Moorlands District
  46. Wellingborough District
  47. West Lindsey District
- UA: Unitary Authority

Priority		
	Woodland Creation	Tree Planting
	High	High
	High	Medium
	Medium	High
	High	Low
	Medium	Medium
	Low	Medium
	Low	Low

0 5 10 km

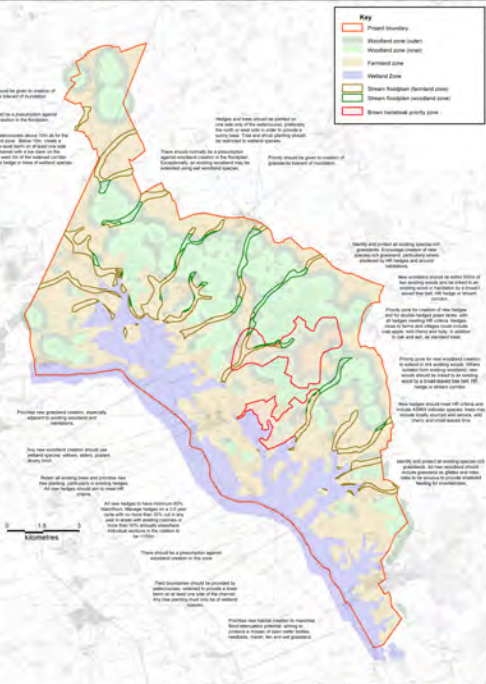


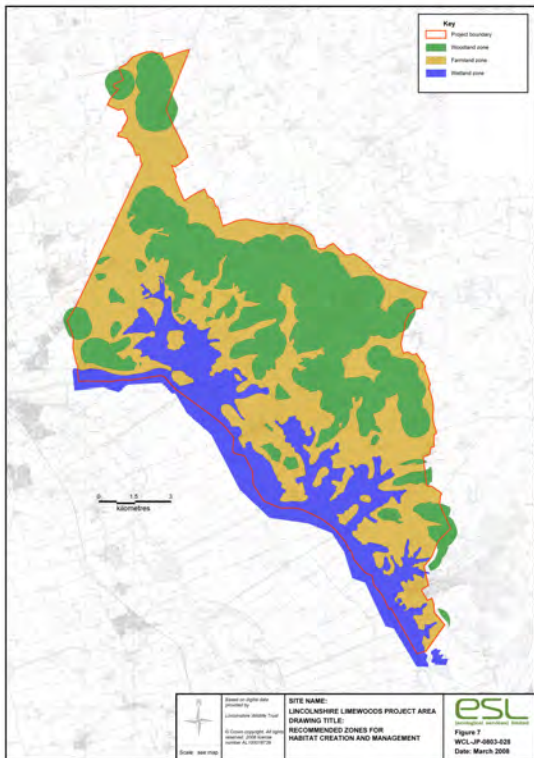
Date: 20th July 2010  
Job Code: 300378  
East Midlands Regional GI Unit  
Name: Elizabeth Williams

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**APPENDIX A12**  
**LINCOLNSHIRE LIMWOODS**  
**BIODIVERSITY OPPORTUNITY MAPPING**

(Source: Wildlife Corridors in the Lincolnshire Limewoods – Habitat Creation Opportunities and Constraints Map, ESL for Lincolnshire Wildlife Trust, 2008)









**APPENDIX A13**  
**TRENT FLOODPLAIN**  
**BIODIVERSITY OPPORTUNITY MAPPING**

(Source: On Trent's Trent Floodplain Biodiversity maps showing areas for potential habitat creation and enhancement, May 2011)

December 2011

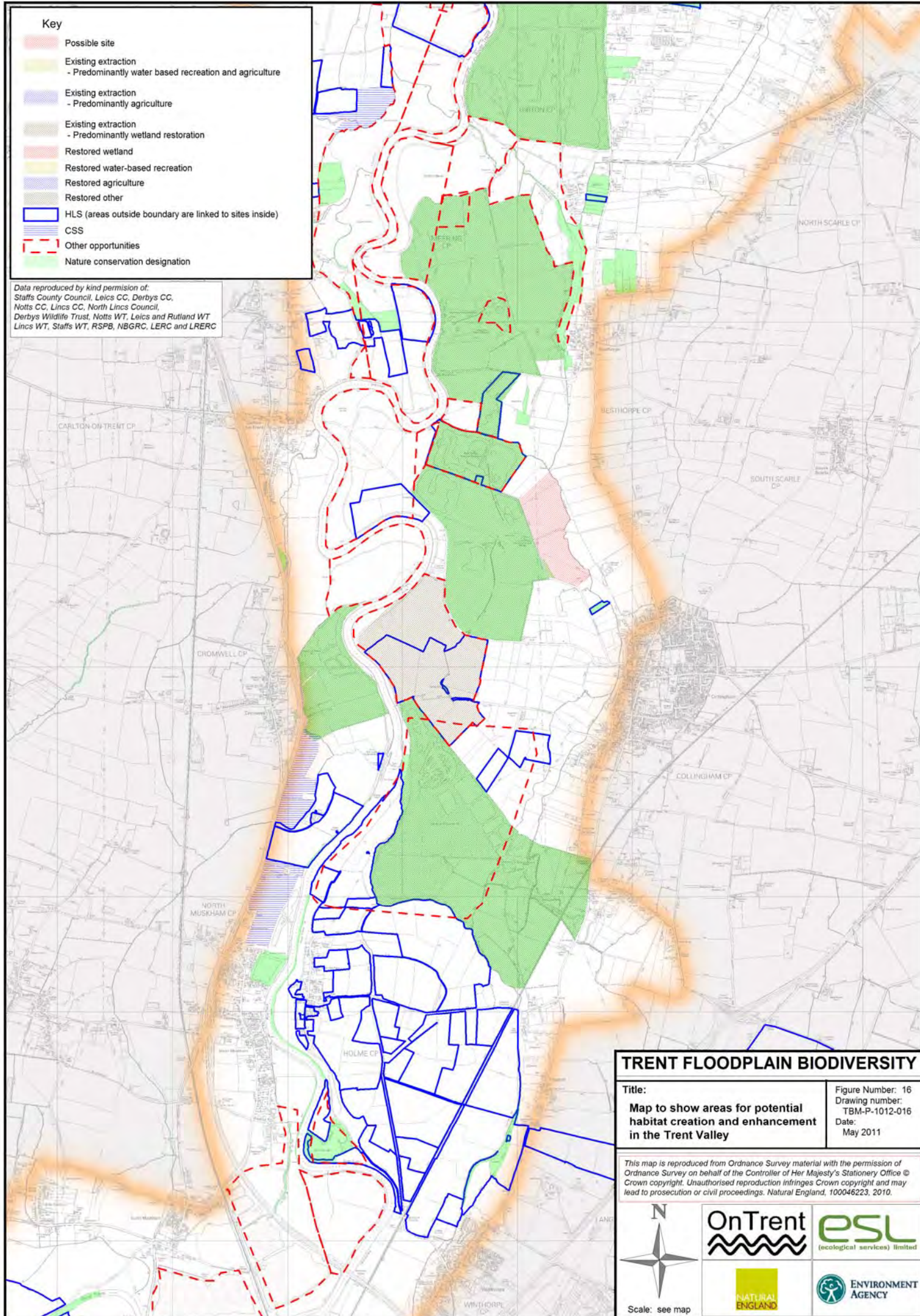
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Green Infrastructure Study  
for Central Lincolnshire  
Volume 2  
Chris Blandford Associates

# Key

- Possible site
- Existing extraction  
- Predominantly water based recreation and agriculture
- Existing extraction  
- Predominantly agriculture
- Existing extraction  
- Predominantly wetland restoration
- Restored wetland
- Restored water-based recreation
- Restored agriculture
- Restored other
- HLS (areas outside boundary are linked to sites inside)
- CSS
- Other opportunities
- Nature conservation designation

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Lincs WT, Staffs WT, RSPB, NBGRC, LERC and LRERC



## TRENT FLOODPLAIN BIODIVERSITY

### Title:

**Map to show areas for potential  
habitat creation and enhancement  
in the Trent Valley**

Figure Number: 16

Drawing number:  
TBM-P-1012-016

Date:  
May 2011

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Scale: see map

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WATER



**esl**  
(ecological services) limited

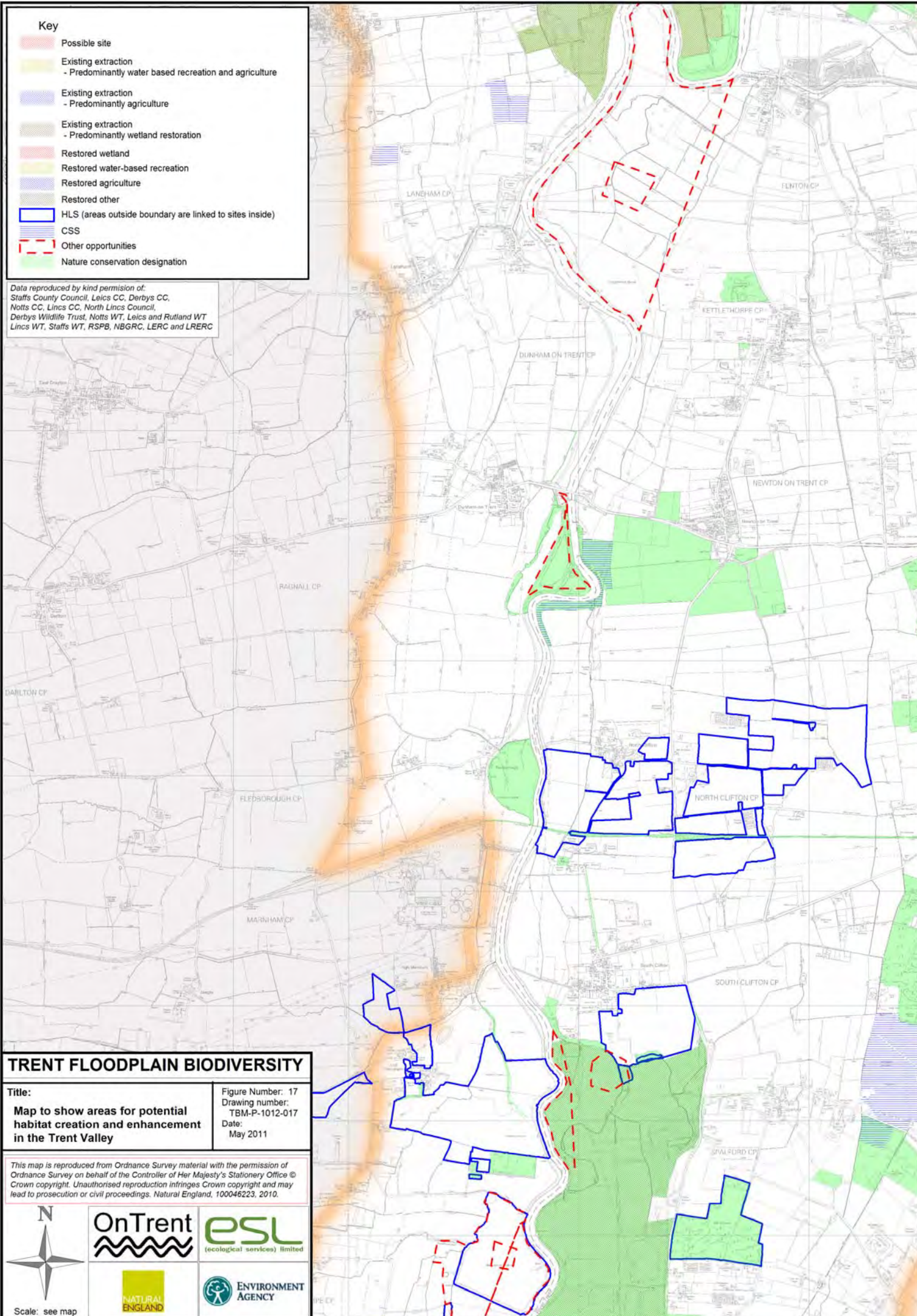




# Key

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- Existing extraction  
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## TRENT FLOODPLAIN BIODIVERSITY

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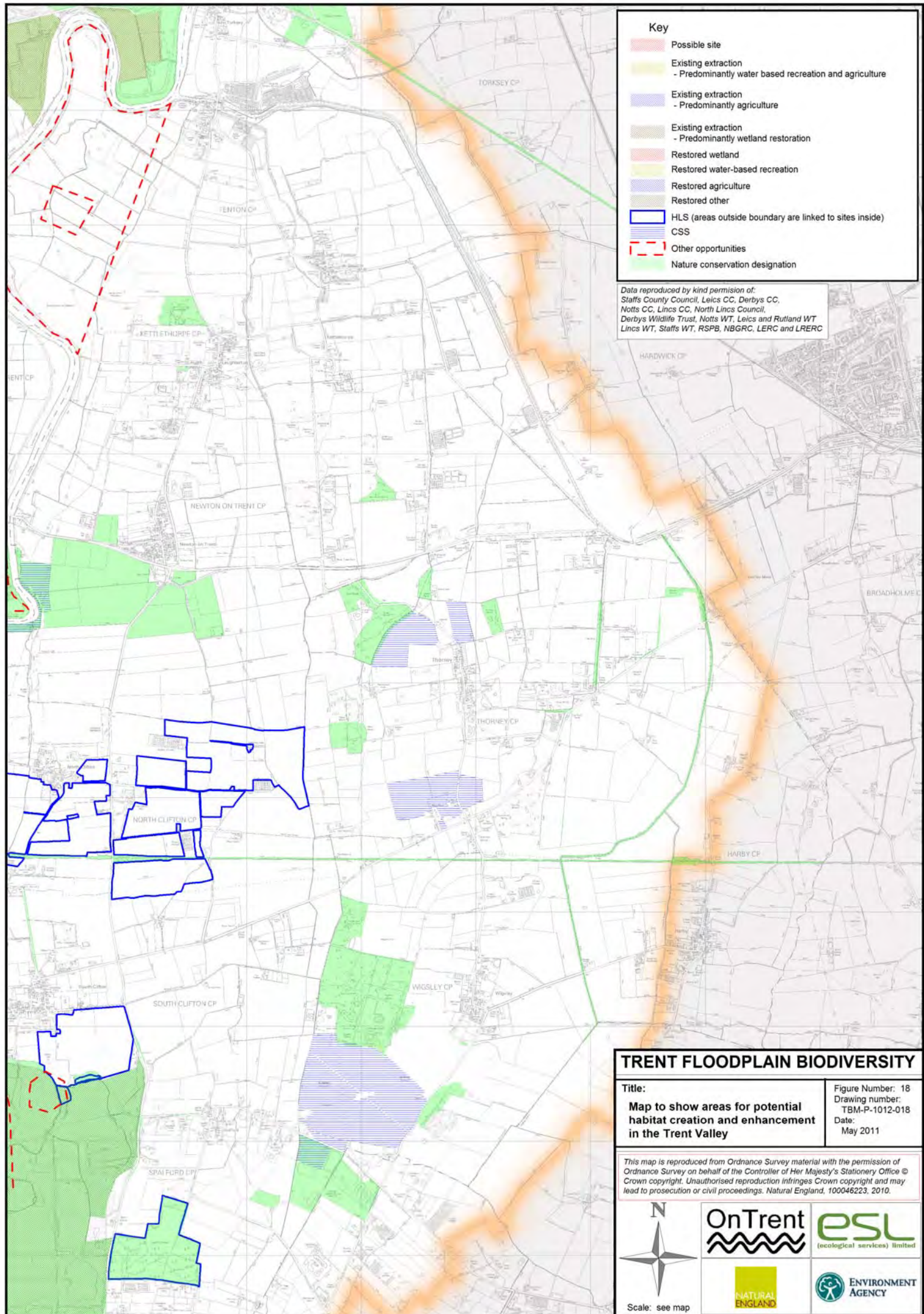
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WATER

**esl**  
(ecological services) limited

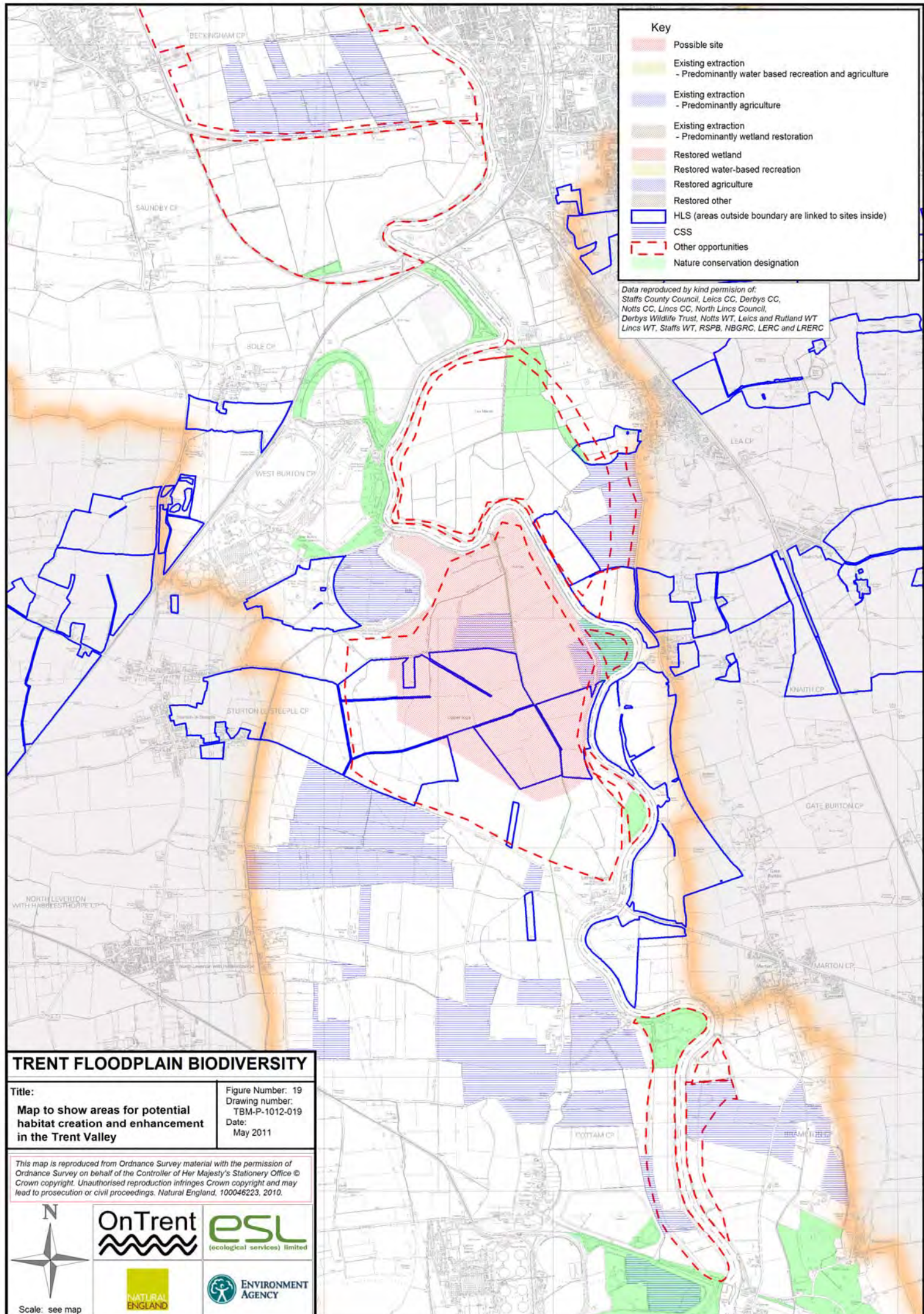


**ENVIRONMENT  
AGENCY**









## TRENT FLOODPLAIN BIODIVERSITY

Title:

Map to show areas for potential  
habitat creation and enhancement  
in the Trent Valley

Figure Number: 19

Drawing number:

TBM-P-1012-019

Date:

May 2011

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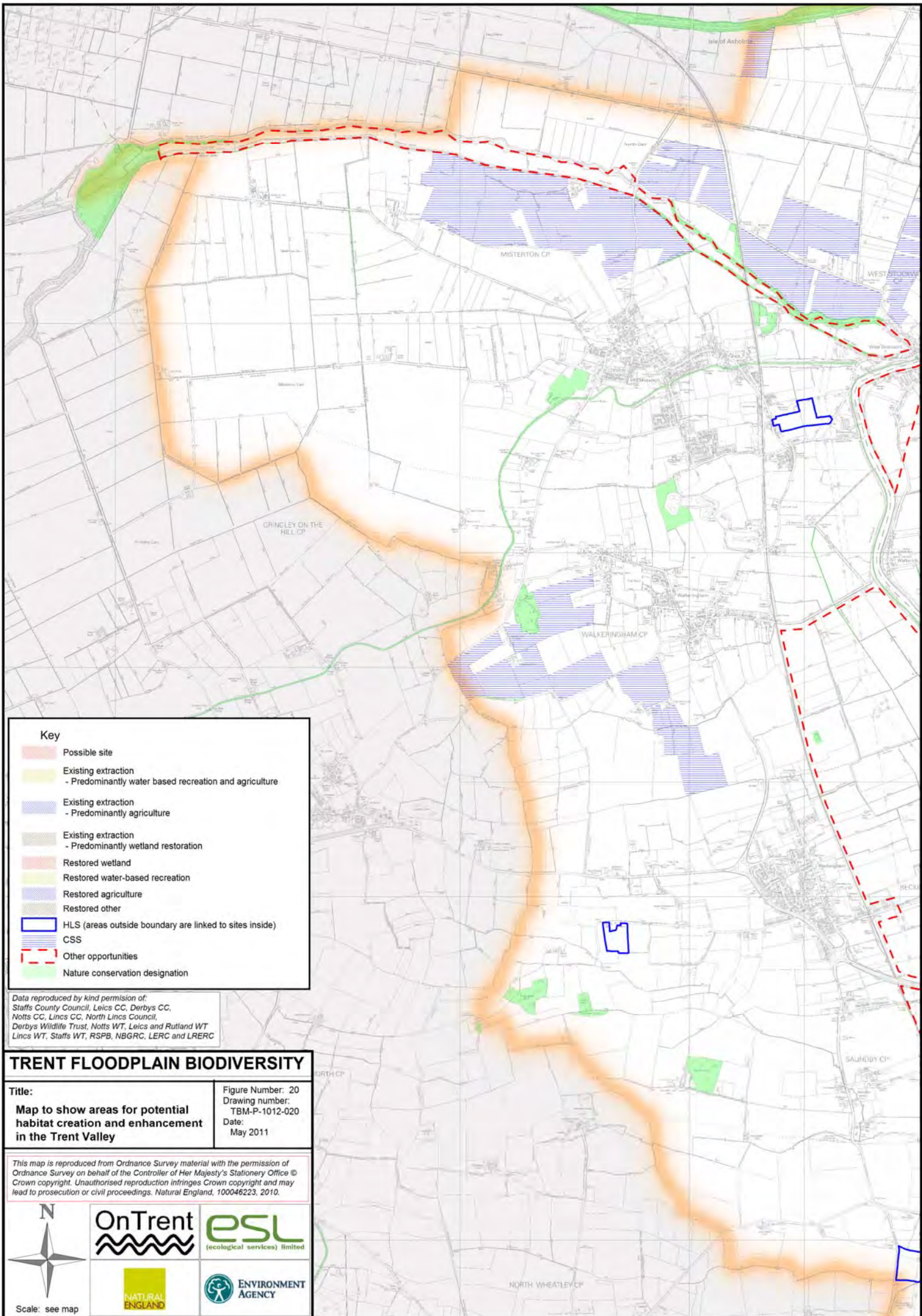
**OnTrent**

**esl**  
(ecological services) limited



ENVIRONMENT  
AGENCY





**Key**

- Possible site
- Existing extraction  
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# TRENT FLOODPLAIN BIODIVERSITY

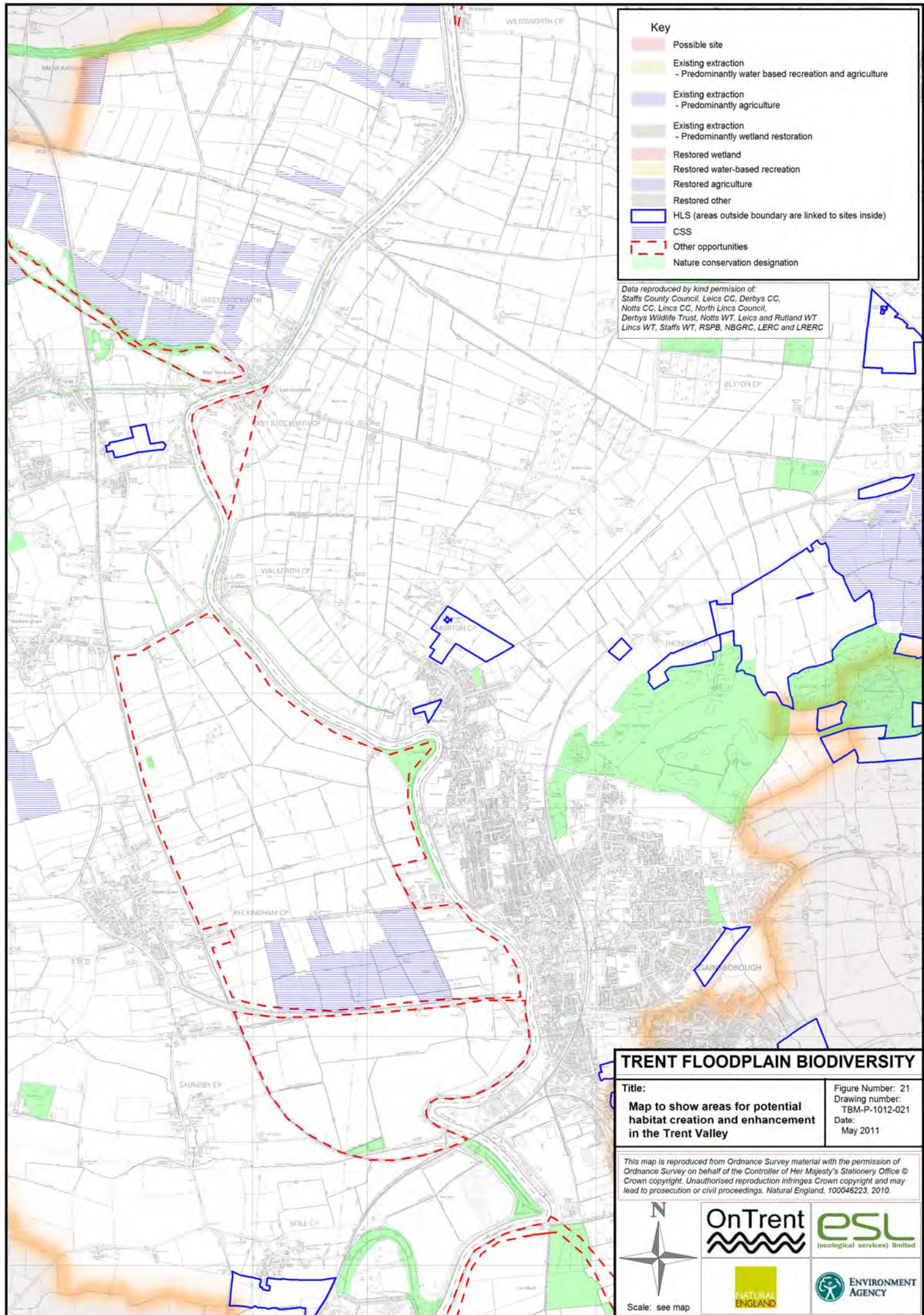
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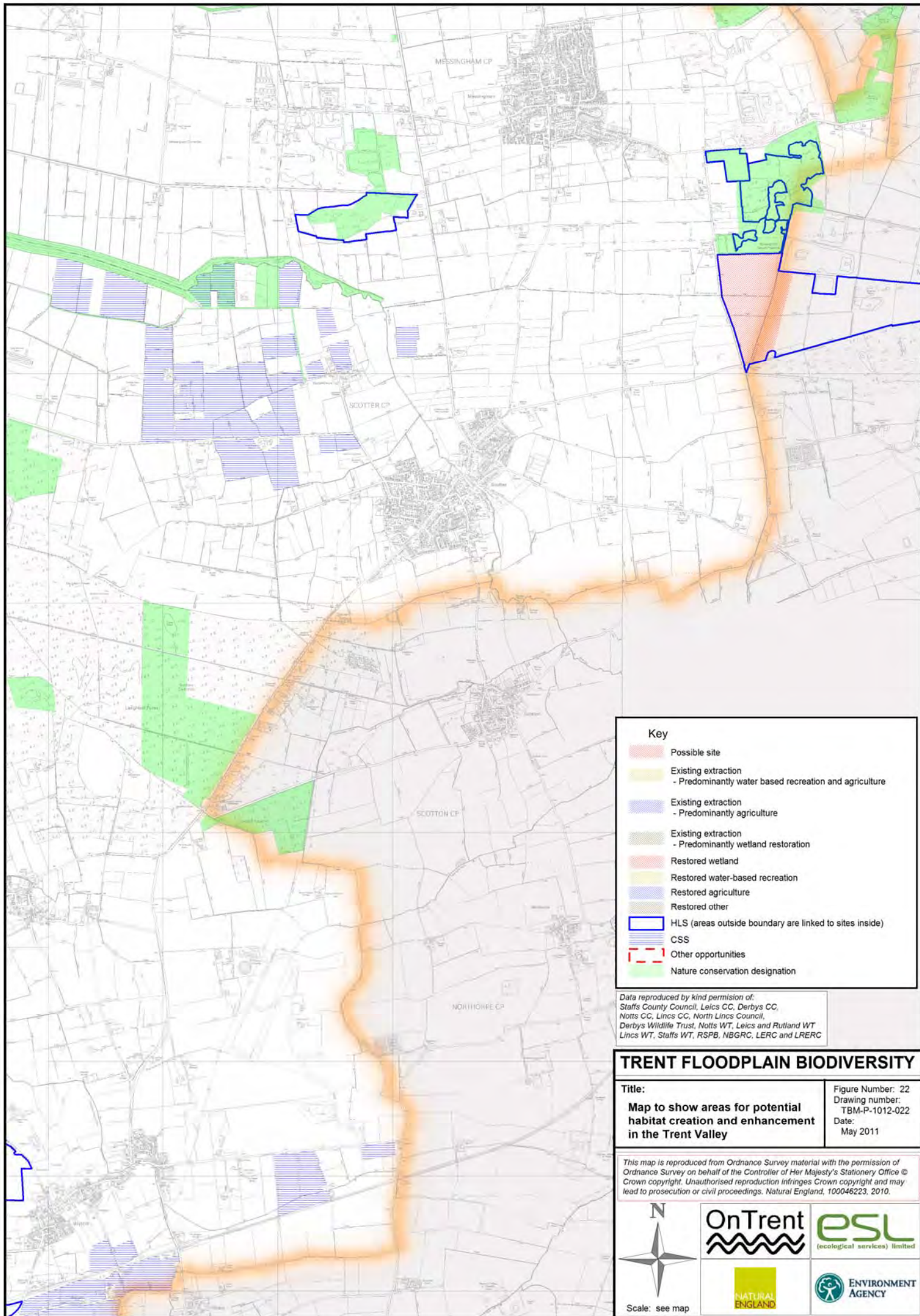
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Key

Possible site

Existing extraction  
- Predominantly water based recreation and agriculture

Existing extraction  
- Predominantly agriculture

Existing extraction  
- Predominantly wetland restoration

Restored wetland

Restored water-based recreation

Restored agriculture

Restored other

HLS (areas outside boundary are linked to sites inside)

CSS

Other opportunities

Nature conservation designation

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## TRENT FLOODPLAIN BIODIVERSITY

Title:

Map to show areas for potential  
habitat creation and enhancement  
in the Trent Valley

Figure Number: 22

Drawing number:  
TBM-P-1012-022

Date:  
May 2011

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Scale: see map

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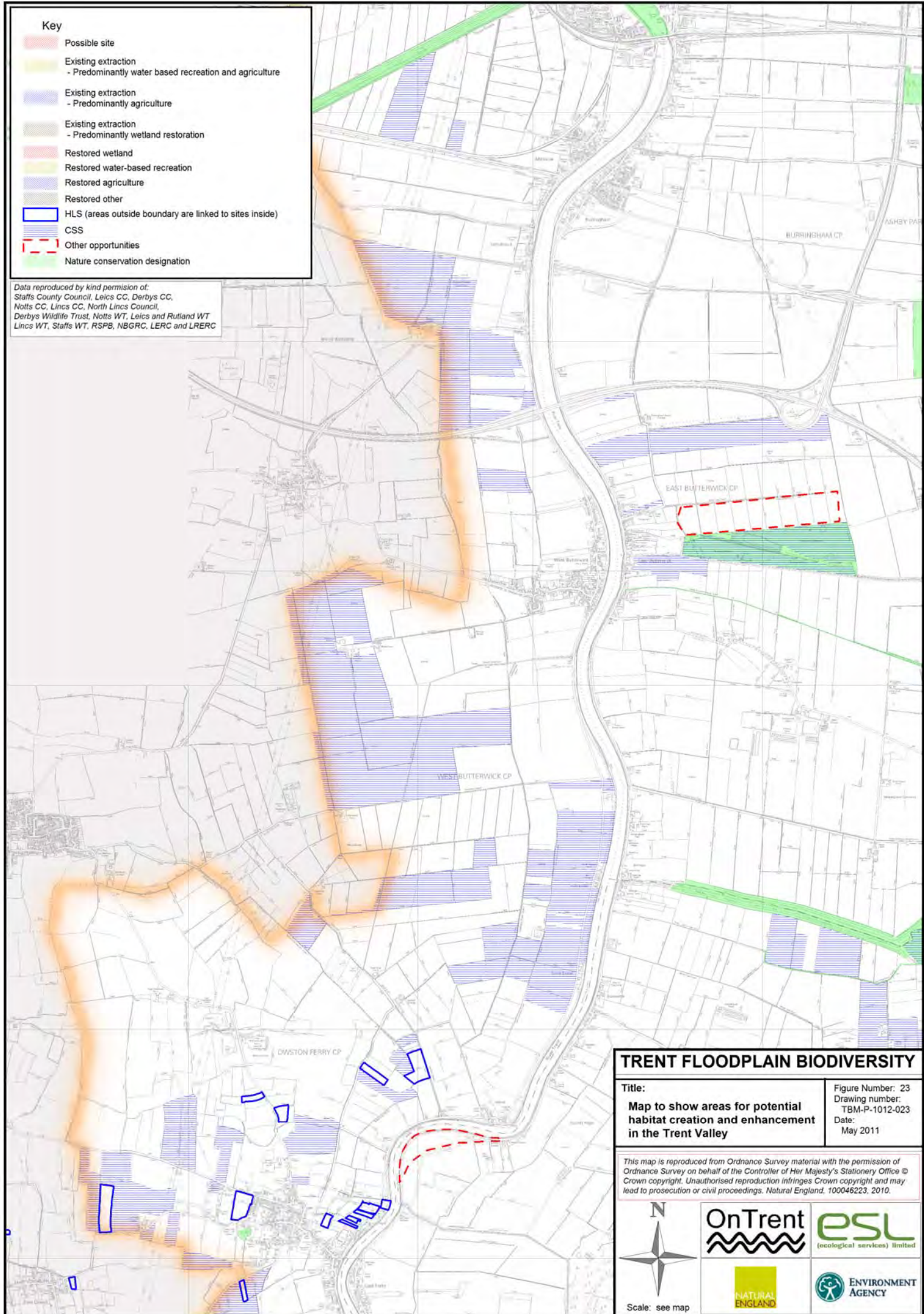
ENVIRONMENT AGENCY



# Key

- Possible site
- Existing extraction  
- Predominantly water based recreation and agriculture
- Existing extraction  
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- Existing extraction  
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Lincs WT, Staffs WT, RSPB, NBGRC, LERC and LRERC



## TRENT FLOODPLAIN BIODIVERSITY

**Title:**  
Map to show areas for potential  
habitat creation and enhancement  
in the Trent Valley

Figure Number: 23  
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WATER



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## **APPENDIX A14 WETLAND OPPORTUNITY MAP**

(Source: Lincolnshire Wildlife Trust Wetland Opportunity Map – 1<sup>st</sup> draft, November 2010. Amended July 2011)

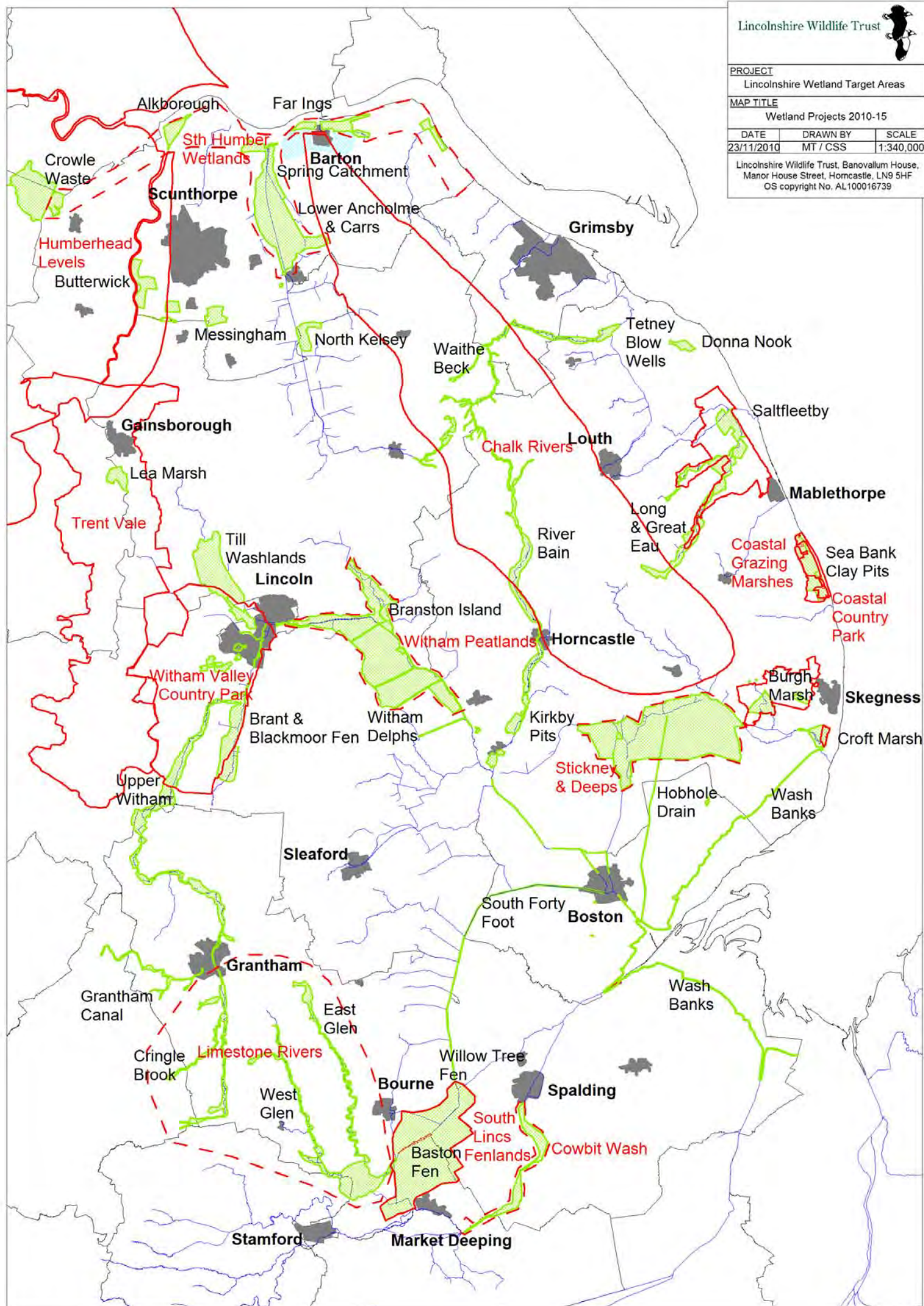
(Key: solid red line – existing ‘Living Landscape’ project areas; dashed red line – potential project area [area where LWT has aspirations for ‘Living Landscape’-scale conservation work/projects but have not yet progressed them]; green hatch – wetland creation opportunity areas [areas with potential for creation/re-creation of wetlands, e.g. historic washlands in floodplains])



MAP TITLE	Wetland Projects 2010-15
-----------	--------------------------

DATE	DRAWN BY	SCALE
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**APPENDIX A15**  
**BIODIVERSITY ACTION PLAN HABITATS TARGETS**  
**WITHIN CENTRAL LINCOLNSHIRE**

## BIODIVERSITY ACTION PLAN HABITATS TARGETS WITHIN CENTRAL LINCOLNSHIRE

### Lincolnshire Biodiversity Action Plan (2<sup>nd</sup> Edition, 2006)

UK BAP Habitat Name	Lincolnshire BAP Habitat Name	Targets (2005-15)
Coastal and Floodplain Grazing Marsh	Grazing Marsh	<ul style="list-style-type: none"> <li>Target 1: Establish a baseline for existing extent and condition of grazing marsh in Lincolnshire by 2010.</li> <li>Target 2: Maintain the extent of grazing marsh in Lincolnshire by 2015.</li> <li>Target 3: Restore 2000 ha of former grazing marsh by 2015.</li> <li>Target 4: Expand the extent of grazing marsh by 1000 ha by 2015 through re-creation at suitable sites.</li> </ul>
Eutrophic Standing Waters	Ponds, Lakes and Reservoirs	<ul style="list-style-type: none"> <li>Target 1: Establish a baseline for existing extent and condition of standing open waterbodies over 100 m<sup>2</sup> in Lincolnshire by 2008.</li> <li>Target 2: Maintain the current extent of standing open water in Lincolnshire (based on 2008 figures) by 2015.</li> <li>Target 3: Achieve favourable condition on 95% of sites by 2015.</li> <li>Target 4: Create 200 new wildlife ponds and scrapes/flushes where appropriate on land of low conservation importance in Lincolnshire by 2015.</li> </ul>
Lowland Calcareous Grassland	Calcareous Grassland	<ul style="list-style-type: none"> <li>Target 1: Establish a baseline for existing extent and condition of calcareous grassland in Lincolnshire by 2010</li> <li>Target 2: Maintain the extent of calcareous grassland in Lincolnshire by 2015</li> <li>Target 3: Achieve favourable condition of all calcareous grassland SSSIs and Local Wildlife Sites by 2015.</li> <li>Target 4: Expand the extent of calcareous grassland habitat by 150 ha by 2015 through restoration and recreation at suitable site.</li> </ul>
Lowland Heathland, Lowland Dry Acid Grassland, Lowland Raised Bog	Heathland and Peatland	<ul style="list-style-type: none"> <li>Target 1: Establish a baseline for existing extent and condition of heathland and peatland in Lincolnshire by 2008.</li> <li>Target 2: Maintain the extent of heathland and peatland in Lincolnshire (based on 2008 figures) by 2015.</li> <li>Target 3: Achieve favourable condition on 95% of sites by 2010.</li> <li>Target 4: Expand the area of managed heathland and peatland to extend or link existing habitats – 100 ha created by 2015 to link or act as buffer zones to existing sites.</li> </ul>

UK BAP Habitat Name	Lincolnshire BAP Habitat Name	Targets (2005-15)
Lowland Meadows	Meadow and Pasture	<ul style="list-style-type: none"> <li>Target 1: Establish a baseline for existing extent and condition of meadow and pasture in Lincolnshire by 2010.</li> <li>Target 2: Maintain the extent of meadow and pasture in Lincolnshire (based on 2010 data from Target 1) by 2015.</li> <li>Target 3: Achieve favourable condition for all meadow and pasture Local Wildlife Sites by 2015</li> </ul>
Lowland Mixed Deciduous Woodland	Ancient Semi-natural woodland	<ul style="list-style-type: none"> <li>Target 1: Undertake 100 surveys of woodlands to identify ancient semi-natural woodland and determine their ecological value by 2010.</li> <li>Target 2: Restore 400 ha of planted ancient woodland sites to appropriate native broadleaved woodland by 2015.</li> <li>Target 3: Establish a further 25 ha of new native woodland in the Limewoods by 2015.</li> </ul>
Wood pasture	Veteran Trees and Lowland Wood Pasture/Parkland	Habitat Action Plan not currently included in the Lincolnshire BAP not currently be produced at a later date
Traditional Orchard	Orchards	Habitat Action Plan not currently included in the Lincolnshire BAP not currently be produced at a later date
Reedbed	Fens, Swamps and Wet Reedbeds	<ul style="list-style-type: none"> <li>Target 1: Establish a baseline for existing extent and condition of all fens, swamps and wet reedbeds of at least 0.5 ha by 2008.</li> <li>Target 2: Maintain the current extent of fens, swamps and wet reedbeds in Lincolnshire (based on 2008 figures) by 2015.</li> <li>Target 3: Achieve favourable condition on 95% of sites by 2015.</li> <li>Target 4: Expand the area of fens, swamps and wet reedbeds in Lincolnshire – 280 ha by 2015.</li> </ul>
Lowland Fen	Fens, Swamps and Wet Reedbeds	
Open Mosaics Habitats		Habitat Action Plan not currently included in the Lincolnshire BAP not currently be produced at a later date





**APPENDIX A16**  
**ACCESSIBLE NATURAL GREENSPACE**  
**ASSESSMENT METHODOLOGY AND FINDINGS**

## ACCESSIBLE NATURAL GREENSPACE ASSESSMENT METHODOLOGY AND FINDINGS

This Appendix sets out the methodology and findings of the accessible natural greenspace needs and deficiencies analysis undertaken for Central Lincolnshire, using the accessibility and quantity standard provided by the 'Access to Natural Greenspace Standard' (ANGSt)<sup>5</sup> promoted by Natural England. This assessment does not consider qualitative matters.

### Why Use ANGSt

ANGSt, originally developed by English Nature and now promoted by Natural England, provides an important tool in assessing current levels/quantities of accessible natural greenspace and planning for better provision. It can be applied as a national benchmark against which local standards for providing accessible natural greenspace can be assessed, areas of deficiency identified and, where necessary, rectified. The three underlying principles of the ANG Standard are:

- Improving access to greenspaces;
- Improving naturalness of greenspaces; and
- Improving connectivity with greenspaces.

ANGSt recommends that everyone, wherever they live, should have an accessible natural green space:

- of at least 2 hectares in size, no more than 300 metres (5 minutes walk) from home;
- at least one accessible 20 hectare site within two kilometres of home;
- one accessible 100 hectare site within five kilometres of home; and
- one accessible 500 hectare site within ten kilometres of home; plus
- a minimum of one hectare of statutory Local Nature Reserves per thousand population.

The standard emphasises the importance for people of being able to have easy access to natural (and semi-natural) green space close to where they live.

### Auditing Accessible Natural Greenspace

This task involved auditing the existing provision of accessible natural greenspace<sup>6</sup> in Central Lincolnshire using the ANGSt model developed by English Nature (now Natural England) as a basis for analysis. The audit was informed by the guidance for undertaking an ANGSt analysis provided in Natural England's *'Nature Nearby: Accessible Natural Greenspace Guidance (2010)'*.

The mapping work was undertaken using a Geographic Information System (GIS) to build an inventory of accessible natural greenspace to which the ANGSt model was applied. In order to build the accessible natural greenspace dataset, existing digital datasets/GIS layers for the following types of accessible natural greenspace were collated and mapped as appropriate:

- Accessible woodlands;
- Country parks;
- CRoW Act 2000 access land;

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<sup>5</sup> Nature Nearby: Accessible Natural Greenspace Guidance (2010, Natural England)

<sup>6</sup> For the purpose of this Study, accessible natural greenspace refers to natural greenspace (largely outside urban areas) that is normally available for public access on foot, providing opportunities for open access for informal recreational activities. Open access may be provided to the public either under statutory provision (e.g. under the Countryside and Rights of Ways Act), dedication by public landowners (e.g. by local authorities) or via voluntary access agreements with private landowners (e.g. under Environmental Stewardship agreements). The permanence of these access arrangements varies from permanent rights of access secured through legislation, to temporary access secured through voluntary arrangements.

Whether a natural greenspace is accessible or not was considered against Natural England's definition of accessible greenspace, which 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)'*.

For the purpose of this Study, natural greenspace is defined as *'places where human control and activities are not intensive so that a feeling of naturalness is allowed to predominate'* (as defined by Natural England in their *'2010 Nature Nearby: Accessible Natural Greenspace Guidance'*).

- Local Nature Reserves<sup>7</sup>, and
- Accessible Natural Greenspaces mapped as part of the Lincoln Biodiversity Audit (2008, City of Lincoln Council)

Only sites with open access to the general public have been included.

### Key Areas with Deficiencies

**Figures A16a-A16l** illustrate the distribution of accessible natural greenspace and the four distance thresholds (based on the ANGSt model) as applied to different sizes of accessible natural greenspace in the Gainsborough, Lincoln and Sleaford areas. It is important to remember when using ANGSt that open countryside and the Public Rights of Way network are not included in the model and therefore care should be taken when interpreting it. The four tiers which have been defined are as follows:

<b>Sub-Regional scale provision</b>	Sites over 500ha	Within 10km
<b>County scale provision</b>	Sites over 100ha	Within 5km
<b>District scale provision</b>	Sites over 20ha	Within 2km
<b>Neighbourhood scale provision</b>	Sites over 2ha	Within 300m

Accessible natural greenspace sites smaller than 2ha in size have therefore been excluded. Whilst many natural greenspaces may not be 'accessible' in the sense that they cannot be entered and used by the general community, they can be appreciated from a distance, and contribute to visual amenity.

Key areas with deficiencies of accessible natural greenspace within the Study Area are:

#### *Gainsborough*

- Deficiency of neighbourhood sites for all of Gainsborough with the exception of a small pocket of residents in the eastern part of the town (who have access to at least one site); and
- Deficiency of district scale sites for all of Gainsborough;
- Deficiency of county scale sites for approximately two thirds of Gainsborough. Residents living in the northern part of Gainsborough have access to at least one site.

#### *Lincoln*

- Deficiency of neighbourhood sites for the majority of residents in the northern half of Lincoln and parts of the southern half of Lincoln (particularly North Hykeham). Pockets of residents in the north-east, north-west, south-east, Birchwood and Boultham Moor parts of the town have access to at least one site;
- Deficiency of district scale sites for residents in the north-east and the very southern tip (North Hykeham area) of Lincoln;
- Deficiency of county scale sites for residents living in the southern tip of Lincoln; and
- Deficiency of sub-regional sites for all of Lincoln.

#### *Sleaford*

- Deficiency of neighbourhood sites for all of Sleaford with the exception of three small pockets of residents in north, centre and south parts of the town (who have access to at least one site);
- Deficiency of district scale sites for all of Sleaford;
- Deficiency of county scale sites for all of Sleaford; and
- Deficiency of sub-regional sites for all of Sleaford.

#### *Other Settlements*

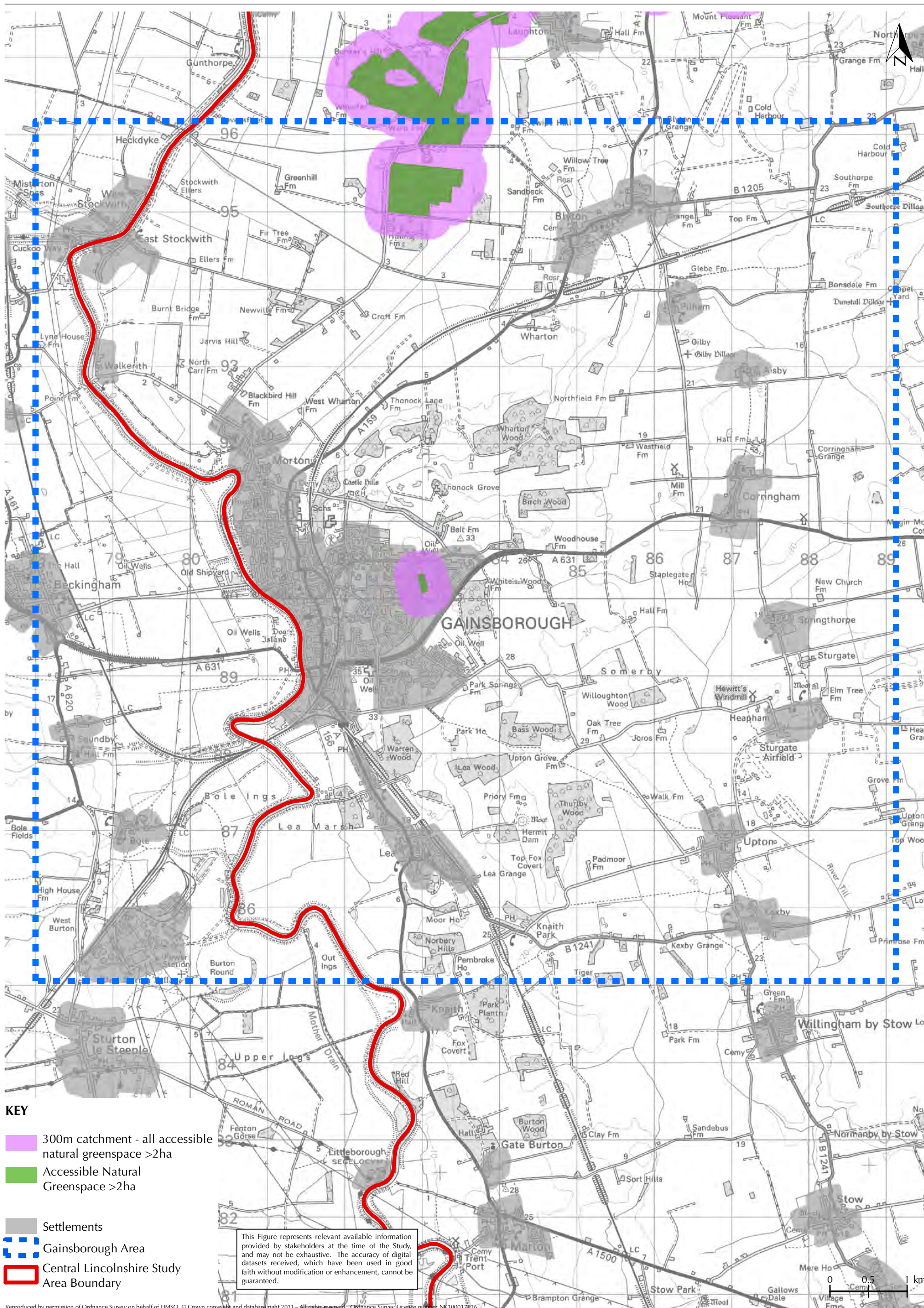
- Deficiency of neighbourhood sites for most other settlements. Residents living in the northern edge of Laughton and Thorpe-on-the-Hill; southern tip of Friesthorpe; north-western tip of Kingthorpe; eastern edge of Bardney and Billinghay and the western edge of Canwick have access to at least one site;

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<sup>7</sup>It should be noted that this includes Lincolnshire Wildlife Trust Nature Reserves where visitors are encouraged to stay on the paths

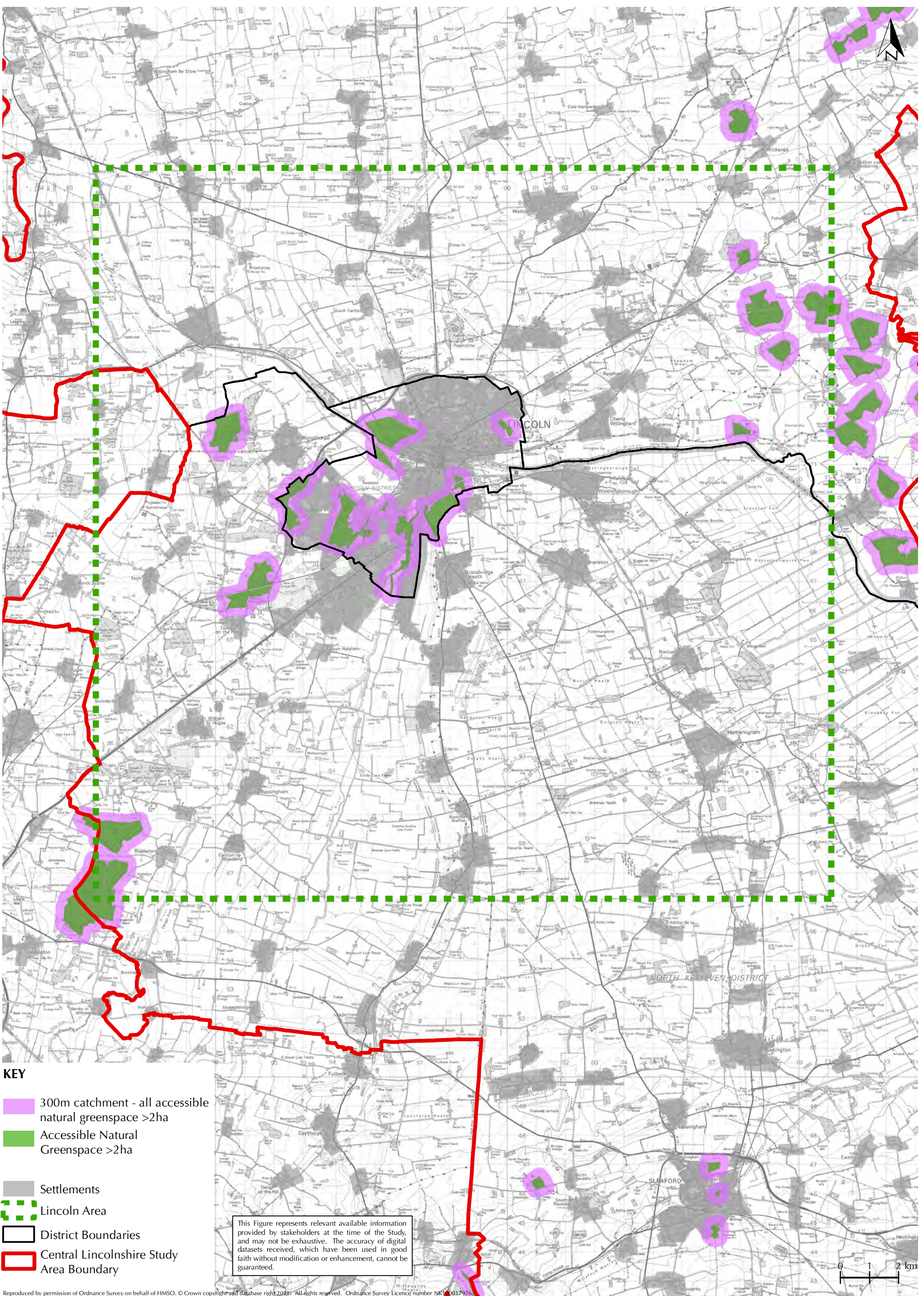
- Deficiency of district scale sites for most other settlements. Residents living in Susworth; the southern part of Scotterthorpe and Scotter; Scotton; Laughton; Wildsworth; the eastern part of East Ferry; the western part of Blyton , Caistor and Nettleton; Moortown; Holton-le-Moor; Usselby; Osgodby; Walesby; the western part of Tealby, North Willingham and Sixhills; Legsby; Linwood; Market Rasen; the northern tip of Middle Rasen; the southern part of Faldingworth; Friesthorpe; the northern part of Lissington and Snelland; Wickenby; the southern part of Stainton-by-Langworth; the eastern part of Langworth; Apley; Kingthorpe; Stainfield; Bardney; Southrey; Canwick; Bracebridge Heath; Broadholme; Skellingthorpe; Doddington; Birchwood; Thorpe-on the-Hill; Norton Disney; Stapleford; and the northern tip of Beckingham have access to at least one site;
- Deficiency of county scale sites for most other settlements. Residents living in Susworth; Scotterthorpe; Scotter; Scotton; Northorpe; East Ferry; Wildsworth; Laughton; Blyton; Pilham; Aisby; East Stockwith; Walkerith; Normanby-le-Wold; Claxby; Usselby; Walesby; Osgodby; Tealby; North Willingham; Sixhills; Legsby; Linwood; Lissington; East Torrington; Market Rasen; Middle Rasen; South Carlton; Burton, the western part of Nettleham, North Greetwell and Washingborough; Canwick; Skellingthorpe; Birchwood; the northern half of Bracebridge Heath; Apley; Kingthorpe; Stainfield; Bardney; Southrey; Martin Dales; Swinderby; Witham St Hughs; Thurlby; Bassingham; Norton Disney; Carlton-le-Moorland; Beckingham and Sutton have access to at least one site; and
- Deficiency of sub-regional sites for most other settlements. Residents living in Susworth; Scotterthorpe; Scotter; Scotton; Northorpe; Grayingham; Blyborough; Willoughton; Hemswell; East Ferry; Wildsworth; Laughton; East Stockwith; Walkerith; Blyton; Pilham; Aisby; Corringham; Springthorpe and Heapham have access to at least one site.
- Current deficiency of at least 55ha of statutory Local Nature Reserves for the Study Area as a whole





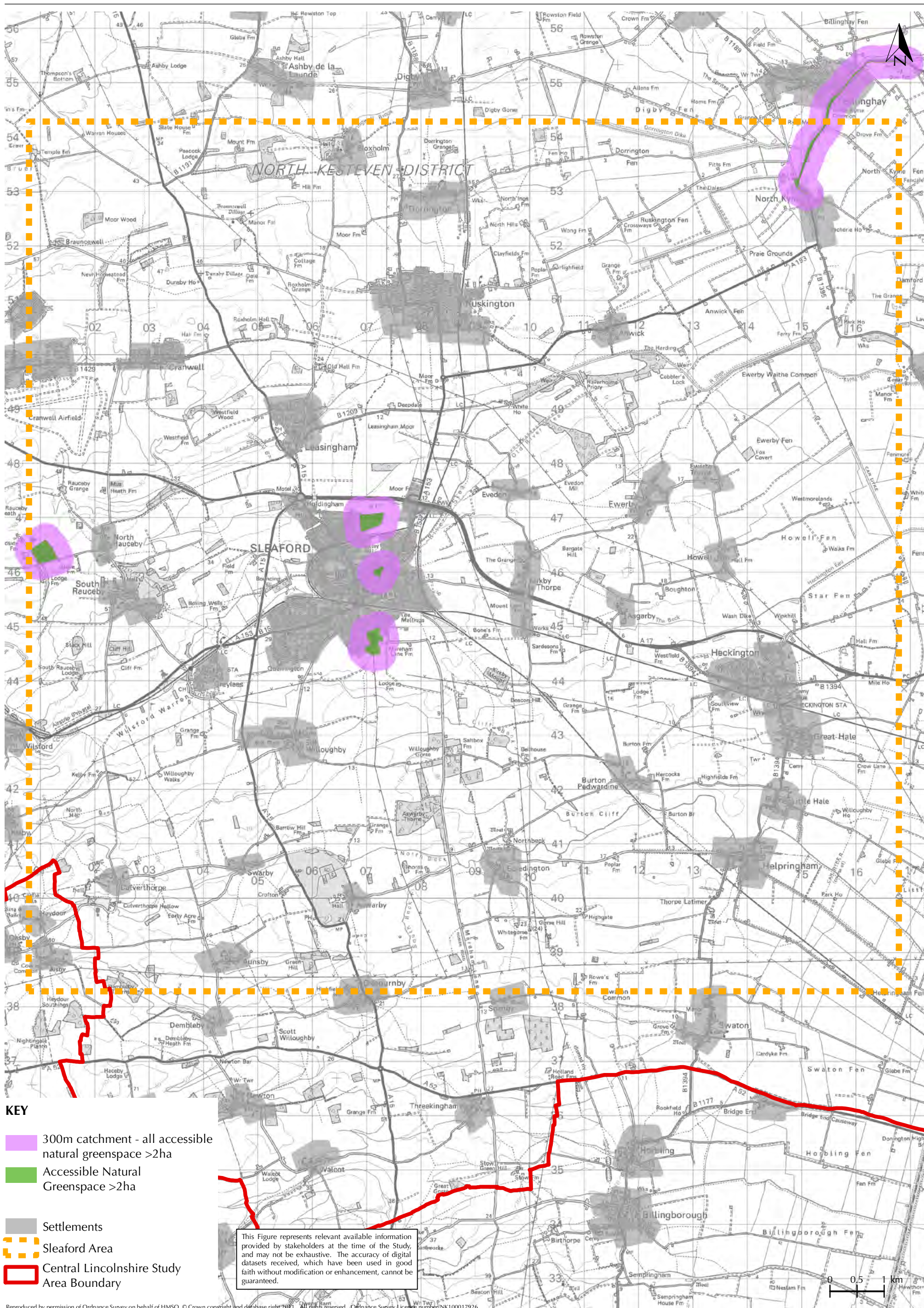
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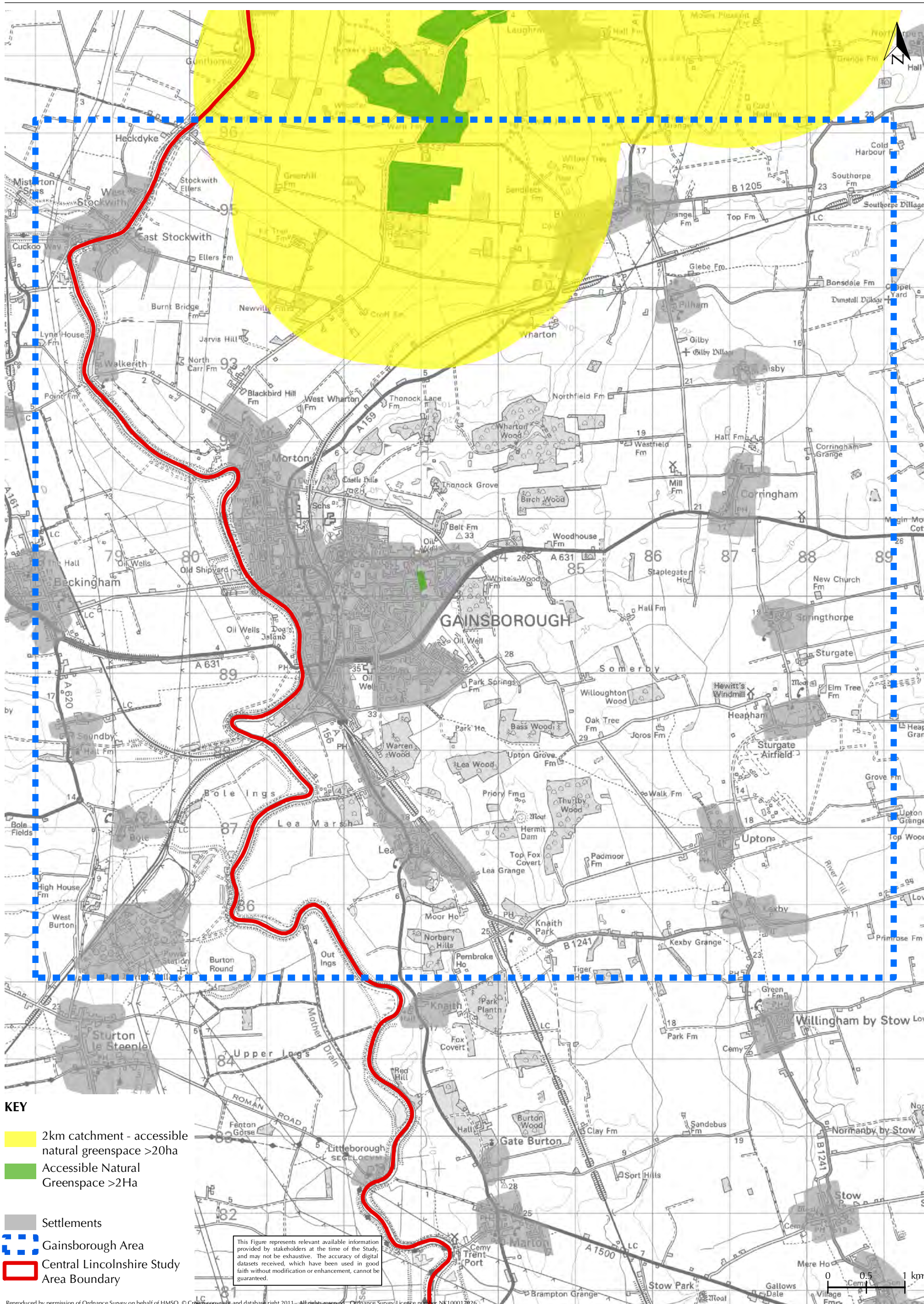


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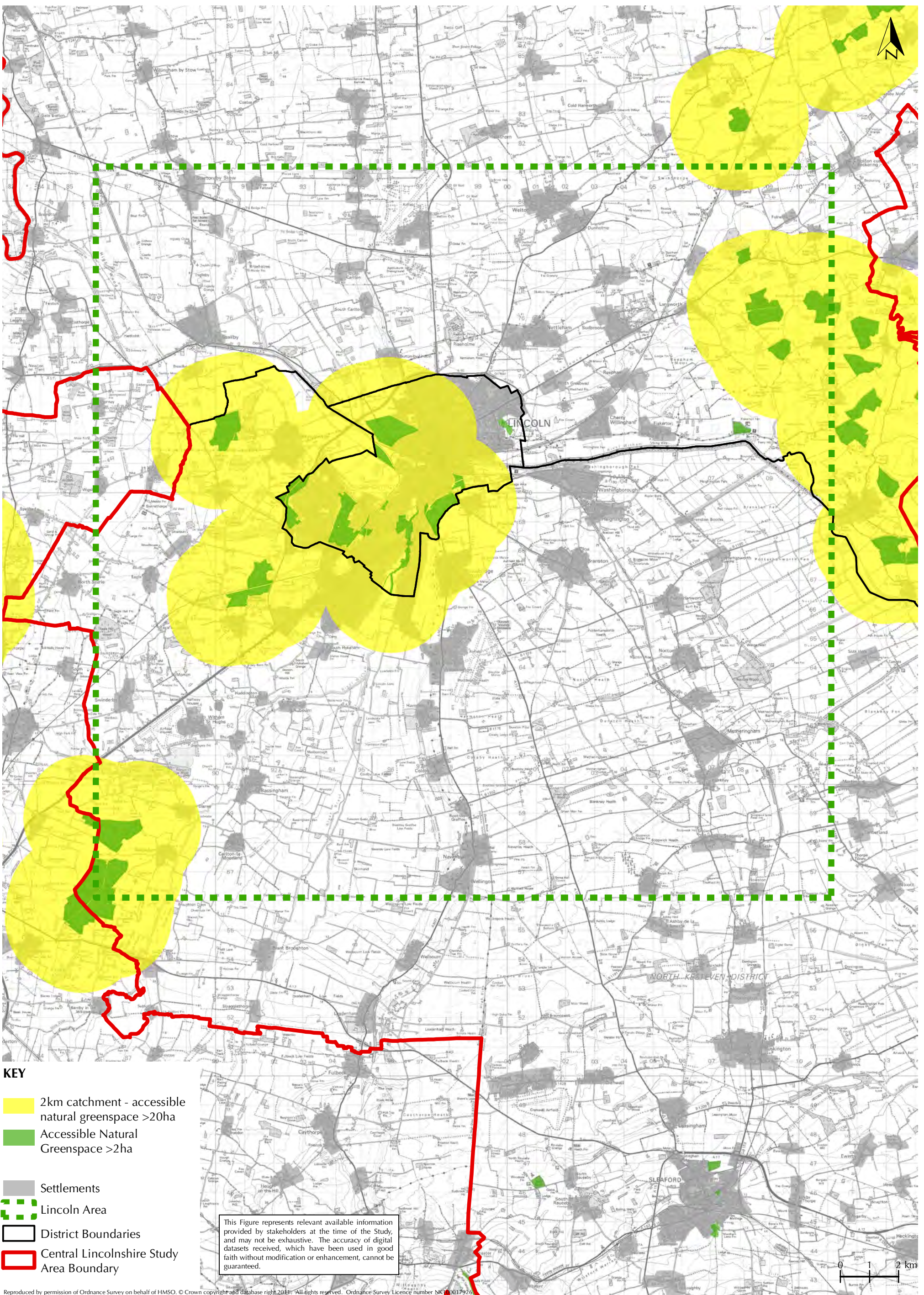










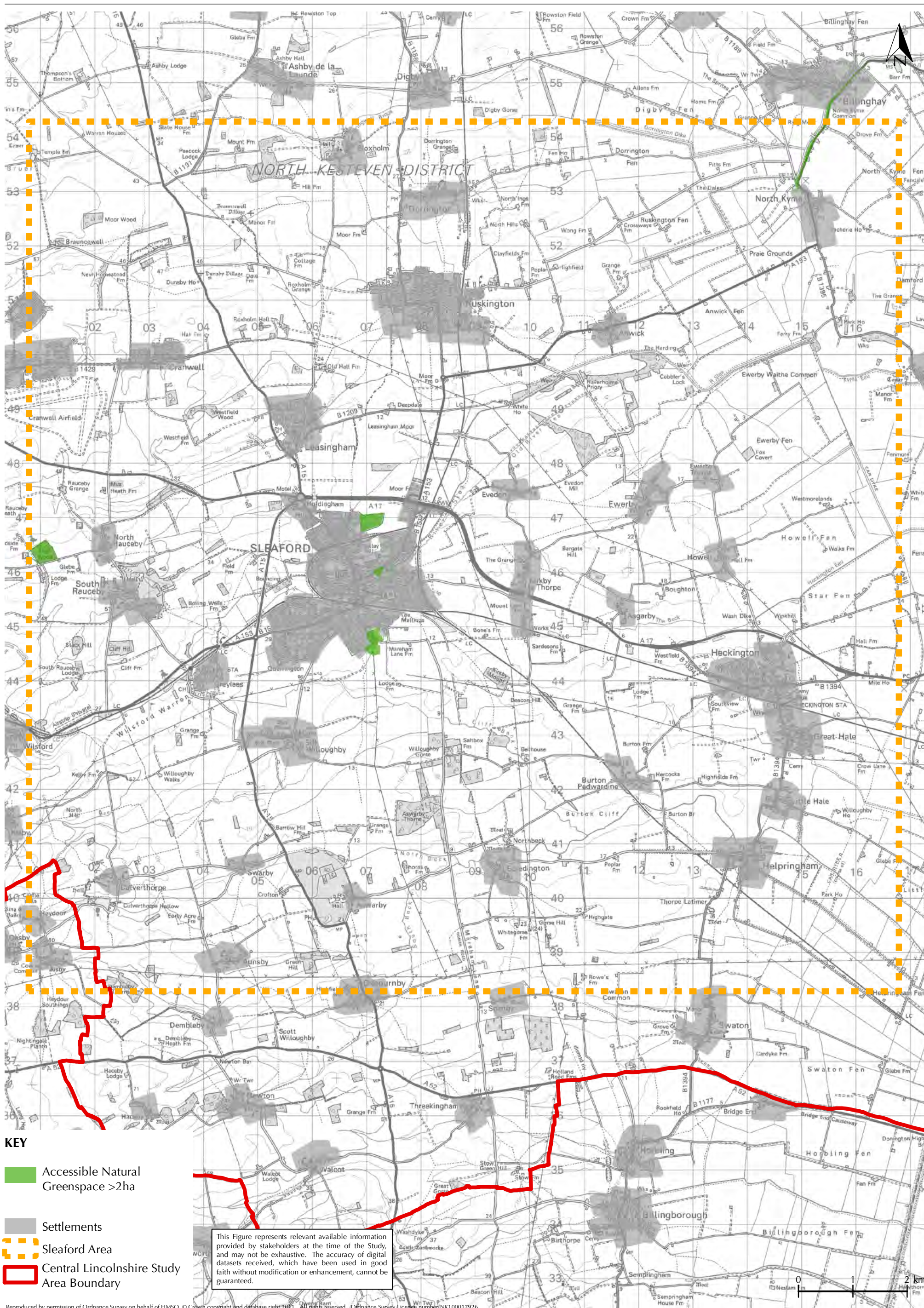


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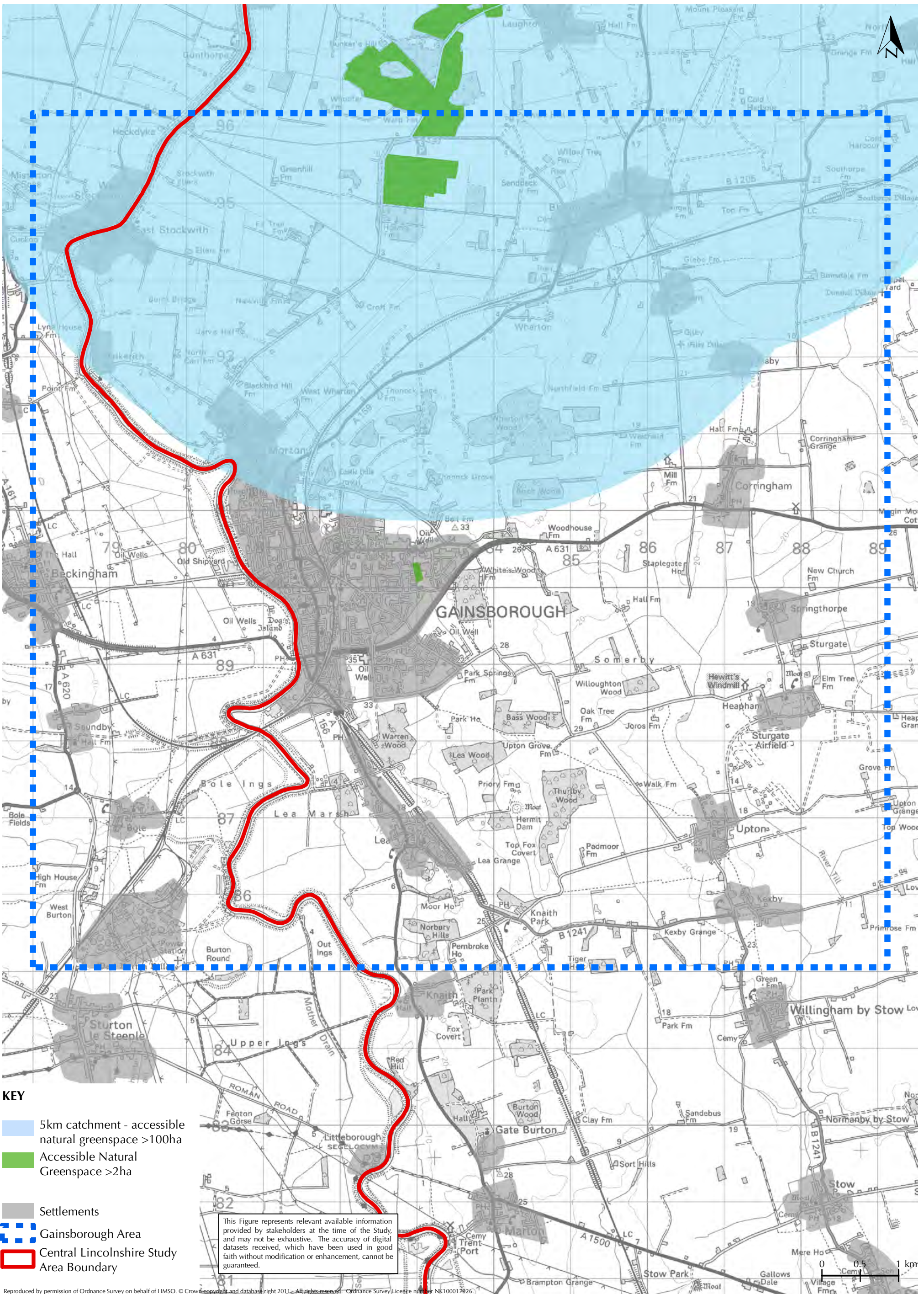
- 2km catchment - accessible natural greenspace >20ha
- Accessible Natural Greenspace >2ha
- Settlements
- Lincoln Area
- District Boundaries
- Central Lincolnshire Study Area Boundary

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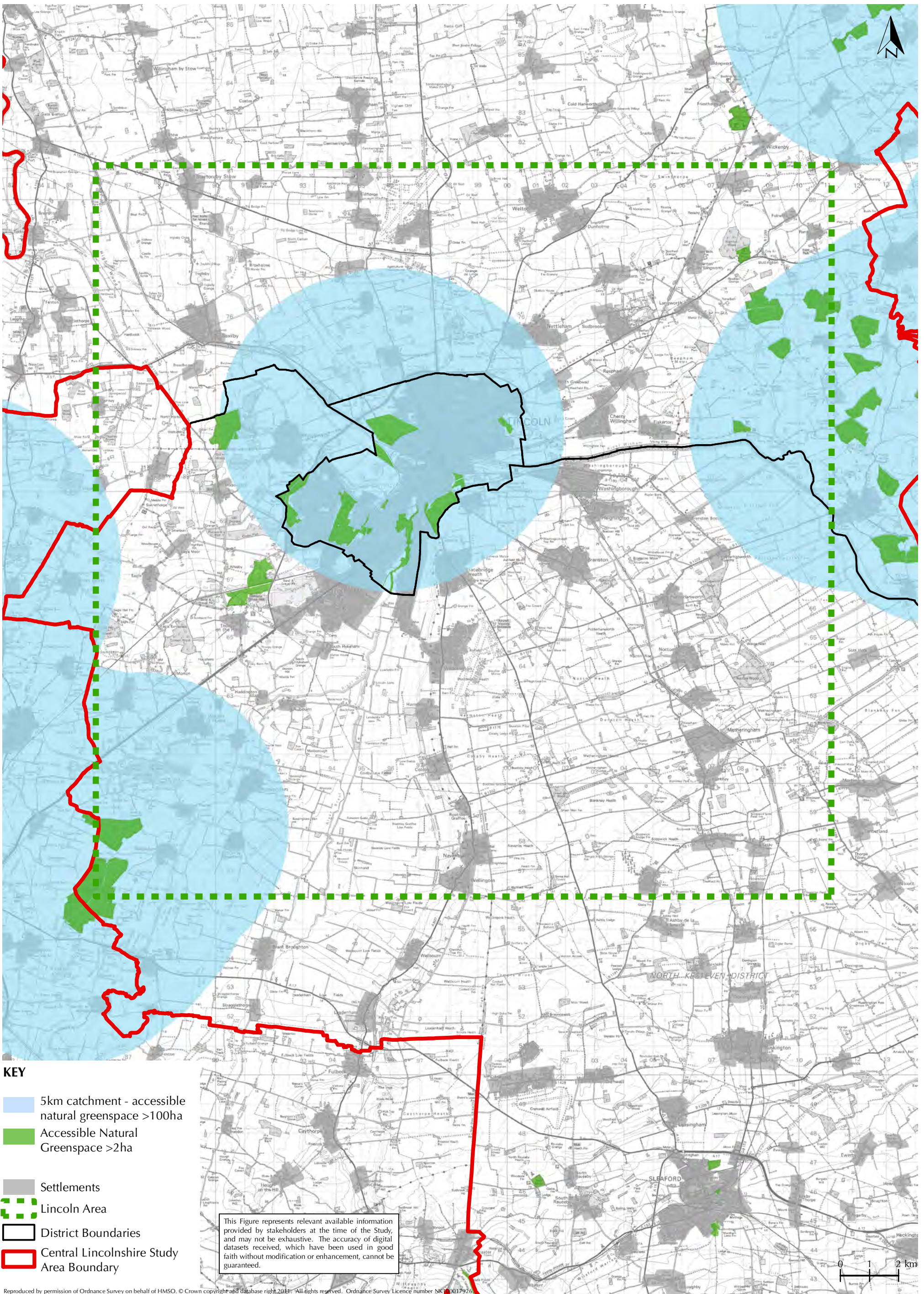
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Volume 2: Audit & Assessment

**FIGURE A16g**  
County Scale  
Accessible Natural Greenspace  
(>100ha - 5km Catchment) -  
Gainsborough Area





# KEY

- 5km catchment - accessible natural greenspace >100ha
- Accessible Natural Greenspace >2ha
- Settlements
- Lincoln Area
- District Boundaries
- Central Lincolnshire Study Area Boundary

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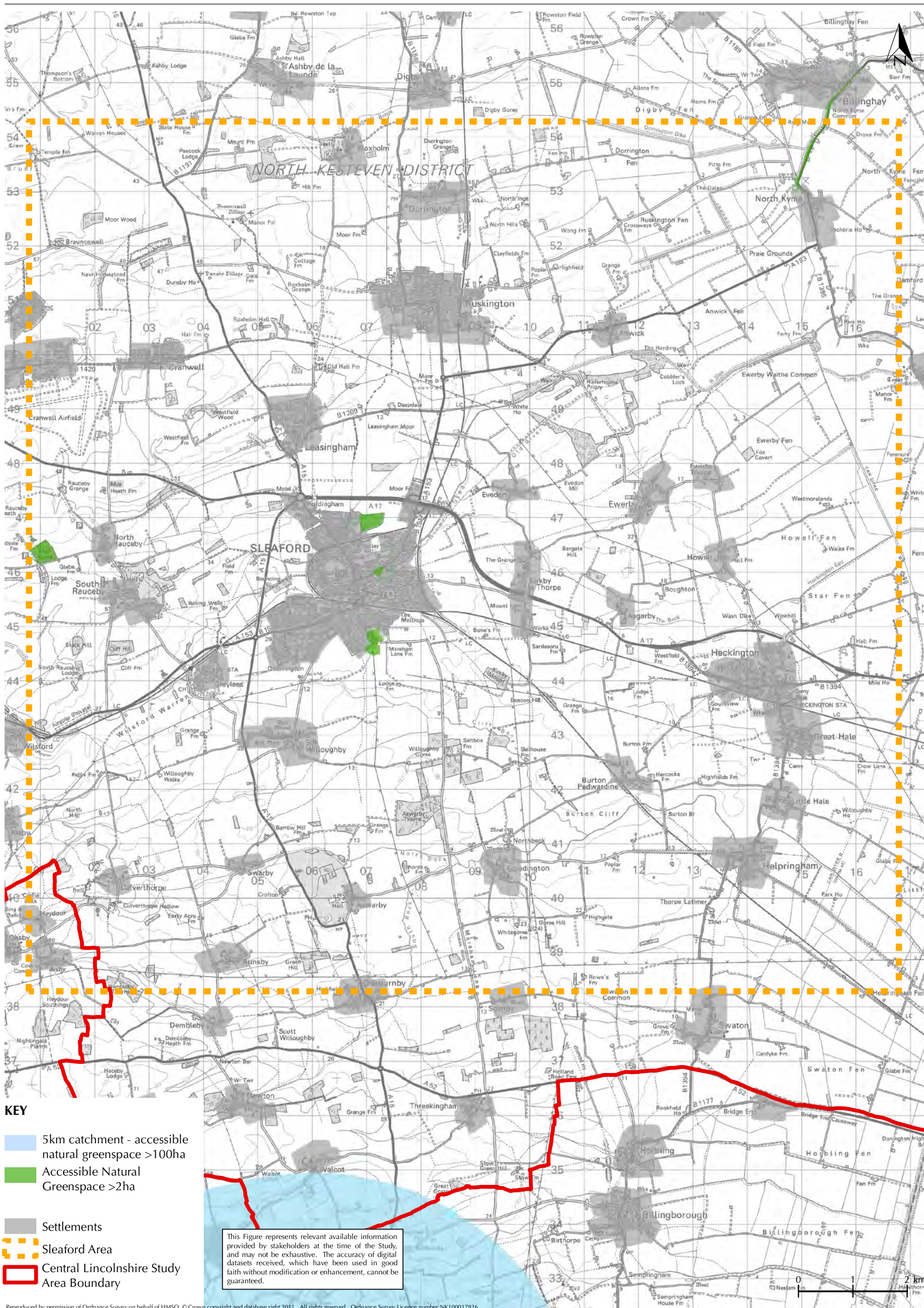
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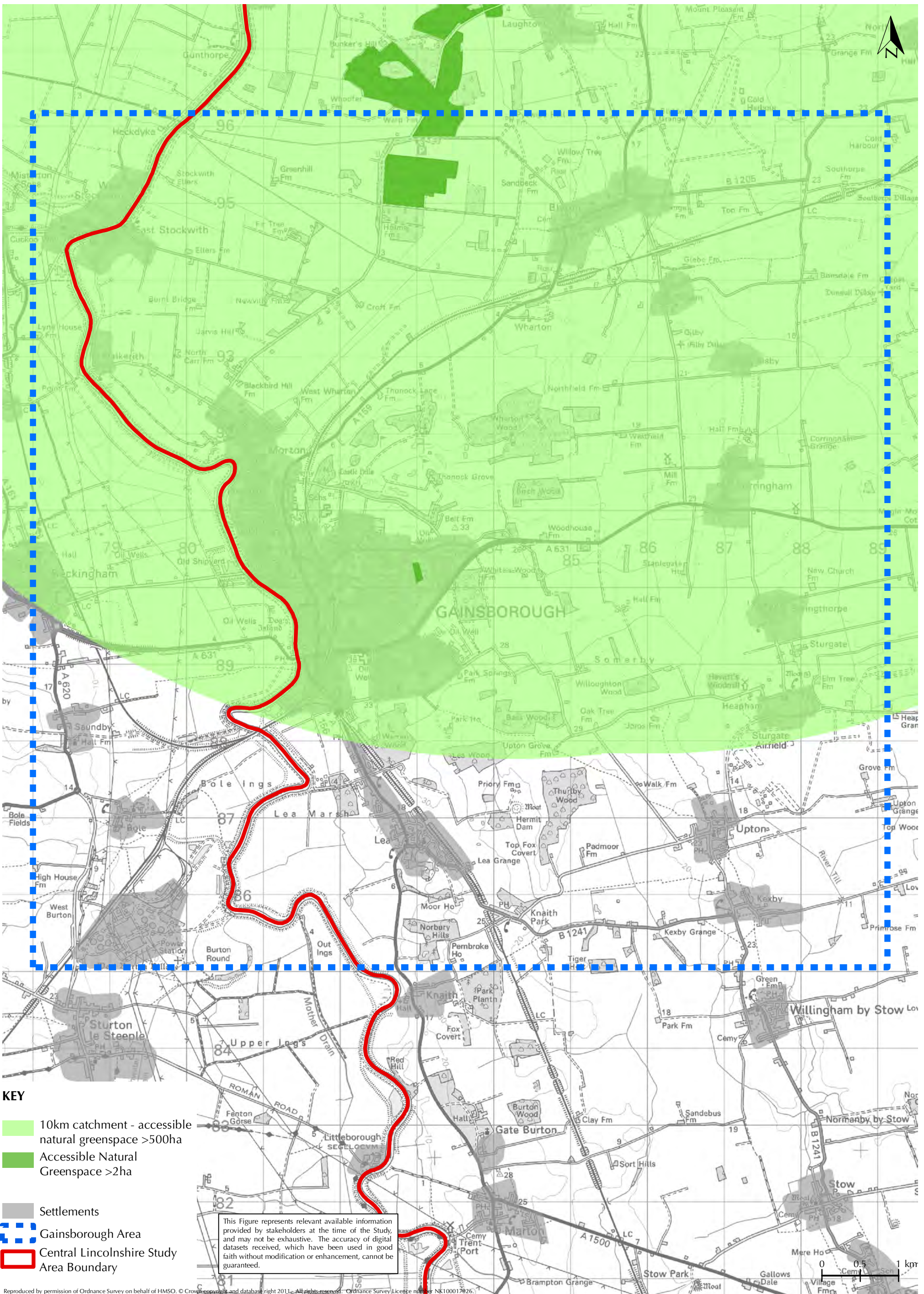
**FIGURE A16h**  
County Scale  
Accessible Natural Greenspace  
(>100ha - 5km Catchment) -  
Lincoln Area





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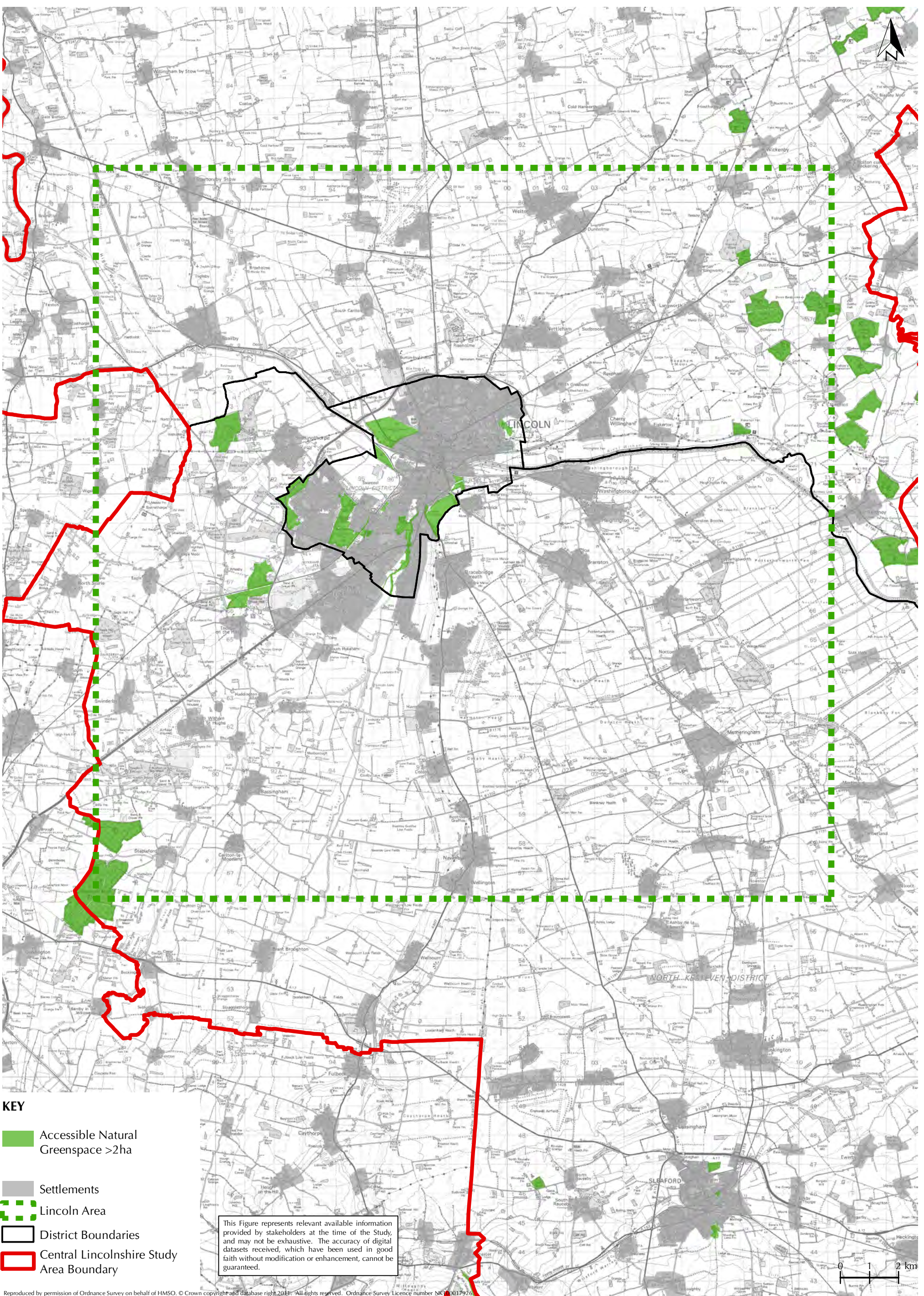
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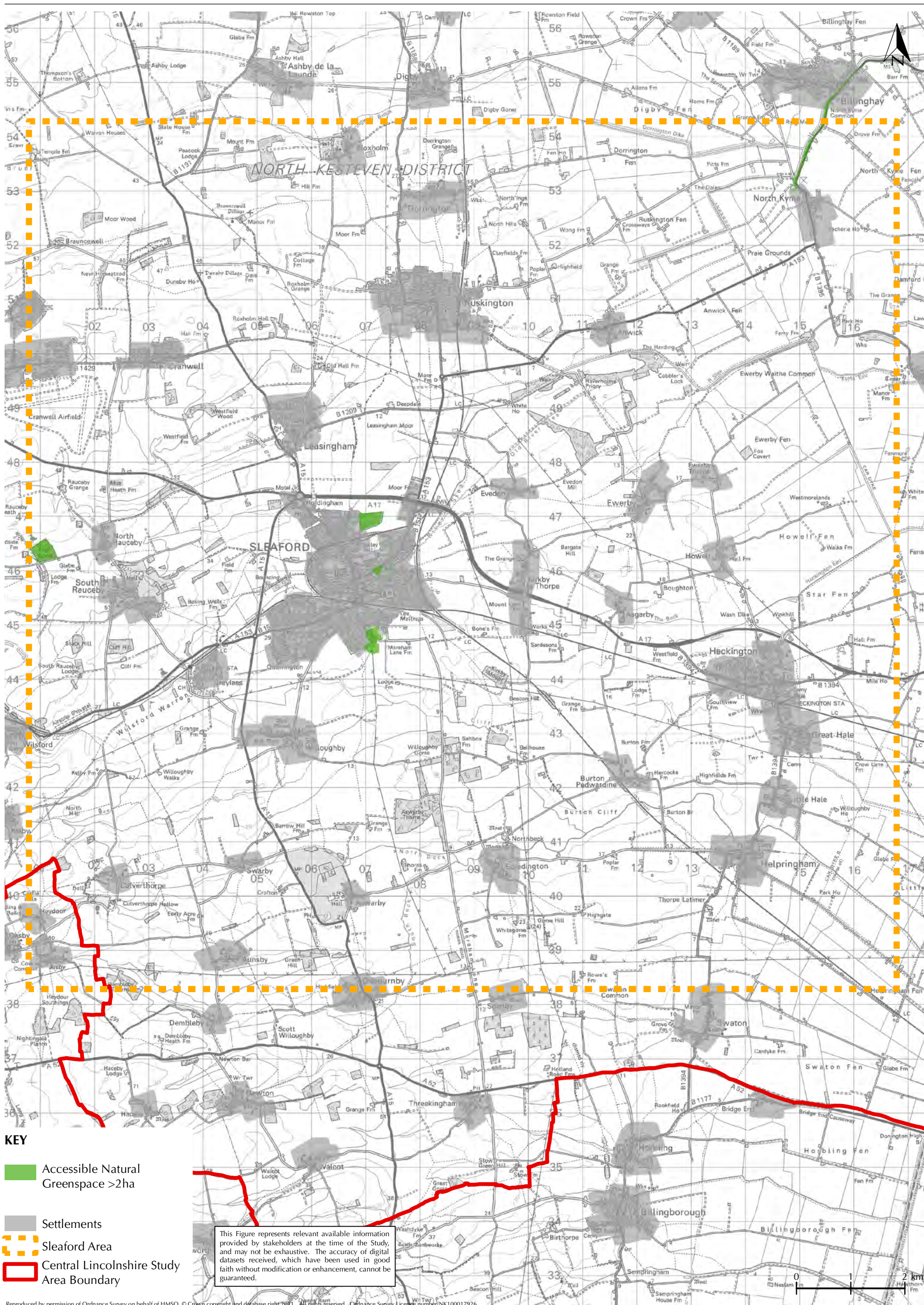
**FIGURE A16j**  
Sub-Regional Scale  
Accessible Natural Greenspace  
(>500ha - 10km Catchment) -  
Gainsborough Area





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## **APPENDIX A17 SPORT AND OPEN SPACE STANDARDS**

## Sport and Open Space Standards

**Table A17a** and **A17b** respectively outline outdoor and indoor sport facility standards and identified deficiencies as listed in the County Sports Facilities Framework (2008) and City of Lincoln Leisure Strategy (2009).

**Table A17a: Minimum Standards of Provision for Outdoor and Indoor Sports Facilities**

Type of Provision	Proposed Standard: City of Lincoln Leisure Strategy, 2009	Proposed Standards: County Sports Facilities Framework, 2008
Swimming pools	<ul style="list-style-type: none"> <li>One 25m indoor swimming pool per 25,000 people.</li> <li>Qualitative improvements to ensure that all aspects of all facilities are rated as at least 'average'.</li> <li>The whole population within 15 minutes travel time of the closest pool.</li> <li>Facility location should seek to minimise the number of users that travel by car.</li> </ul>	<ul style="list-style-type: none"> <li>One 25m x 6 lane indoor swimming pool per 30,000 people</li> <li>Within 15 minute driving time.</li> </ul>
Athletics tracks	<ul style="list-style-type: none"> <li>One 400m synthetic athletics track per 250,000 people.</li> <li>Qualitative improvements to ensure that all aspects of the facility are rated as at least 'average'.</li> <li>The whole population within 30 minutes travel time of the closest track.</li> <li>Facility location should seek to minimise the number of users that travel by car</li> </ul>	<ul style="list-style-type: none"> <li>One 6-lane synthetic athletics track per 225,000 people</li> <li>Within 30 minute drive time.</li> <li>Training facilities to serve more localised demand.</li> </ul>
Indoor bowls	<ul style="list-style-type: none"> <li>One 6-rink indoor bowls hall per 80,000 people.</li> <li>Qualitative improvements to ensure that all aspects of the facility are rated as at least 'average'.</li> <li>The whole population within 15 minutes travel time of the facility.</li> <li>Facility location should minimise the number of users that travel by car.</li> </ul>	<ul style="list-style-type: none"> <li>One 6-rink indoor bowls centre per 50,000 people</li> <li>Within 20 minute drivetime</li> </ul>
Synthetic turf pitches	<ul style="list-style-type: none"> <li>One floodlit synthetic turf pitch per 20,000 people.</li> <li>Qualitative improvements to ensure that all aspects of all facilities are rated as at least 'average'.</li> <li>The whole population within 20 minutes travel time of the closest pitch.</li> <li>Facility location should minimise the number of users that travel by car.</li> </ul>	<ul style="list-style-type: none"> <li>One full-sized floodlit synthetic turf pitch per 50,000 people</li> <li>Within 20 minute drive time.</li> </ul>
Golf courses	<ul style="list-style-type: none"> <li>One golf course per 23,000 people.</li> <li>Qualitative improvements to ensure that all aspects of the facility are rated as at least 'average'.</li> <li>The whole population within 20 minutes travel time of the closest course.</li> </ul>	<ul style="list-style-type: none"> <li>One 18-hole golf course per 20,000 people</li> <li>Within 20 minute drive time.</li> </ul>

Type of Provision	Proposed Standard: City of Lincoln Leisure Strategy, 2009	Proposed Standards: County Sports Facilities Framework, 2008
	<ul style="list-style-type: none"> <li>Facility location should seek to minimise the number of users that travel by car.</li> </ul>	
Ice rinks	<ul style="list-style-type: none"> <li>One ice rink per 750,000 people.</li> <li>The whole population within 60 minute drive of the closest ice rink.</li> </ul>	Not provided
Sports halls	<ul style="list-style-type: none"> <li>One four-badminton court sports hall per 12,000 people.</li> <li>Qualitative improvements so that all aspects of all facilities are rated as at least 'average'.</li> <li>The whole population within 15 minutes travel time of the closest sports hall.</li> <li>Facility location should seek to minimise the number of users that travel by car.</li> </ul>	<ul style="list-style-type: none"> <li>One 4-badminton court sized sports hall per 22,000 people</li> <li>Within 15 minute driving time.</li> </ul>
Outdoor bowls	<ul style="list-style-type: none"> <li>One bowling green per 11,000 people.</li> <li>Qualitative improvements to ensure that all aspects of all facilities are rated as at least 'average'.</li> <li>The whole population within 15 minutes travel time of the closest green.</li> <li>Facility location should seek to minimise the number of users that travel by car.</li> </ul>	<ul style="list-style-type: none"> <li>One 6-rink outdoor bowling green per 6,000 people</li> <li>Within 15 minute drivetime</li> </ul>
Tennis courts	<ul style="list-style-type: none"> <li>One tennis court per 2,000 people.</li> <li>Qualitative improvements to ensure that all aspects of all facilities are rated as at least 'average'.</li> <li>The whole population within 15 minutes travel time of the closest court.</li> <li>Facility location should seek to minimise the number of users that travel by car.</li> </ul>	<p>Indoor</p> <ul style="list-style-type: none"> <li>One indoor court per 50,000 people</li> <li>Within 30 minute drive time.</li> </ul> <p>Outdoor</p> <ul style="list-style-type: none"> <li>One tennis court per 2,250 people</li> </ul> <p>Within 15 minute drive time.</p>
Squash courts	<ul style="list-style-type: none"> <li>One squash court per 6,500 people.</li> <li>Qualitative improvements to ensure that all aspects of all facilities are rated as at least 'average'.</li> <li>The whole population within 20 minutes driving time of the closest court.</li> <li>Facility location should seek to minimise the number of users that travel by car.</li> </ul>	<ul style="list-style-type: none"> <li>One squash court per 15,000 people</li> <li>Within 15 minute drive time.</li> </ul>
Health and fitness gyms	<ul style="list-style-type: none"> <li>One health and fitness gym per 10,000 people.</li> <li>Qualitative improvements to ensure that all aspects of all facilities are rated as at least 'average'.</li> <li>The whole population within 15</li> </ul>	<ul style="list-style-type: none"> <li>One health and fitness facility per 10,000 people</li> <li>Within 15 minutes driving time.</li> </ul>

Type of Provision	Proposed Standard: City of Lincoln Leisure Strategy, 2009	Proposed Standards: County Sports Facilities Framework, 2008
	<p><i>minutes travel time of the closest gym.</i></p> <ul style="list-style-type: none"> <li>• <i>Facility location should seek to minimise the number of users that travel by car.</i></li> </ul>	
Adult football pitches	<ul style="list-style-type: none"> <li>• <i>One adult football pitch per 2,250 people.</i></li> <li>• <i>Qualitative improvements to ensure that all aspects of all facilities are rated as at least 'average'.</i></li> <li>• <i>The whole population within 15 minutes travel time of the closest pitch.</i></li> <li>• <i>Facility location should seek to minimise the number of users that travel by car.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>One pitch per 2,500 people</i></li> <li>• <i>Within 15 minute drive time.</i></li> </ul>
Junior football pitches	<ul style="list-style-type: none"> <li>• <i>One junior football pitch per 3,500 people.</i></li> <li>• <i>Qualitative improvements to ensure that all aspects of all facilities are rated as at least 'average'.</i></li> <li>• <i>The whole population within 15 minutes travel time of the closest pitch.</i></li> <li>• <i>Facility location should seek to minimise the number of users that travel by car.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>One pitch per 3,500 people</i></li> <li>• <i>Within 15 minute driving time.</i></li> </ul>
Mini-soccer pitches	<ul style="list-style-type: none"> <li>• <i>One mini-soccer pitch per 8,500 people.</i></li> <li>• <i>Qualitative improvements to ensure that all aspects of all facilities are rated as at least 'average'.</i></li> <li>• <i>The whole population within 15 minutes travel time of the closest pitch.</i></li> <li>• <i>Facility location should seek to minimise the number of users that travel by car.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>One pitch per 8,000 people</i></li> <li>• <i>Within 15 minute drive time.</i></li> </ul>
Cricket pitches	<ul style="list-style-type: none"> <li>• <i>One cricket pitch per 10,000 people.</i></li> <li>• <i>Qualitative improvements to ensure that all aspects of all facilities are rated as at least 'average'.</i></li> <li>• <i>The whole population within 20 minutes travel time of the closest pitch.</i></li> <li>• <i>Facility location should seek to minimise the number of users that travel by car.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>One pitch per 6,000 people</i></li> <li>• <i>Within 15 minute drive time.</i></li> </ul>
Rugby pitches	<ul style="list-style-type: none"> <li>• <i>One rugby pitch per 20,000 people.</i></li> <li>• <i>Qualitative improvements to ensure that all aspects of all facilities are rated as at least 'average'.</i></li> <li>• <i>The whole population within 20 minutes travel time of the closest pitch.</i></li> <li>• <i>Facility location should seek to</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>One pitch per 20,000 people</i></li> <li>• <i>Within 20 minute drive time.</i></li> </ul>

Type of Provision	Proposed Standard: City of Lincoln Leisure Strategy, 2009	Proposed Standards: County Sports Facilities Framework, 2008
	<i>minimise the number of users</i>	
Village/Community Halls	<i>Not provided</i>	<p>One hall per 2,000 people with:</p> <ul style="list-style-type: none"> <li>• Minimum size of 6.0m x 4.6m x 2.7m.</li> <li>• Minimum quality score of 'average'.</li> <li>• Within 15 minute drivetime.</li> </ul>
Children's play	<i>Refer to Play Strategy</i>	<i>See individual play strategies</i>

**Table A17b: Identified (Current) Deficiencies in the Provision of Outdoor and Indoor Sports Facilities**

Type of Provision	Deficiencies in Provision identified in the County Assessment	Deficiencies in Provision identified in the City of Lincoln Assessment
Swimming pools	<ul style="list-style-type: none"> <li>• Lincoln: 1 in west area (limited access to existing dual use pools)</li> <li>• West Lindsey: 1 in east area (Market Rasen/ Caistor)</li> </ul>	<ul style="list-style-type: none"> <li>• Limited community access to existing pools on education sites</li> <li>• Qualitative deficiencies at all existing facilities</li> </ul>
Athletics tracks (synthetic)	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• No quantitative deficiency</li> <li>• Qualitative deficiencies in changing provision at existing facility</li> </ul>
Outdoor bowls	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• No quantitative deficiency</li> <li>• Qualitative improvements at all existing facilities.</li> </ul>
Indoor bowls	<ul style="list-style-type: none"> <li>• North Kesteven: 1 on Lincoln fringe</li> </ul>	<ul style="list-style-type: none"> <li>• No substantive quantitative or qualitative deficiency</li> </ul>
Synthetic turf pitches	<ul style="list-style-type: none"> <li>• West Lindsey: 1 in north area (Gainsborough)</li> </ul>	<ul style="list-style-type: none"> <li>• No substantive quantitative deficiency, but additional provision could be made to offset shortfalls in natural turf pitches</li> <li>• Limited community access to existing pitches on private/education sites</li> </ul>
Golf courses	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• No quantitative deficiency (needs are met by provision in the wider Lincoln Policy Area).</li> <li>• Qualitative deficiencies at existing facility</li> </ul>
Ice rinks	<ul style="list-style-type: none"> <li>• Not specified</li> </ul>	<ul style="list-style-type: none"> <li>• No current deficiency (needs are met by provision in neighbouring counties with overlapping catchments).</li> </ul>
Sports halls	<ul style="list-style-type: none"> <li>• North Kesteven: 1 on Lincoln fringe</li> </ul>	<ul style="list-style-type: none"> <li>• No substantive quantitative deficiency.</li> <li>• Qualitative deficiencies at all existing facilities.</li> </ul>
Indoor tennis courts	<ul style="list-style-type: none"> <li>• Shortfall of 11 courts in the north and south-west of the county</li> </ul>	<ul style="list-style-type: none"> <li>• Not specified</li> </ul>
Outdoor tennis courts	<ul style="list-style-type: none"> <li>• North Kesteven: 4 courts</li> </ul>	<ul style="list-style-type: none"> <li>• No quantitative deficiency</li> <li>• Qualitative deficiencies at all existing facilities.</li> </ul>
Squash courts	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• No quantitative deficiency</li> <li>• Qualitative deficiencies at all existing facilities.</li> </ul>
Health and fitness	<ul style="list-style-type: none"> <li>• Lincoln: 2 facilities</li> </ul>	<ul style="list-style-type: none"> <li>• One large health and fitness facility</li> </ul>

Type of Provision	Deficiencies in Provision identified in the County Assessment	Deficiencies in Provision identified in the City of Lincoln Assessment
gyms	<ul style="list-style-type: none"> <li>North Kesteven: 2 facilities</li> </ul>	on the east side of the City.
Children's play	<ul style="list-style-type: none"> <li>Not specified</li> </ul>	<ul style="list-style-type: none"> <li>Several areas of the City have only small play areas. Glebe, Minster and Bracebridge wards are classified as 'very poor' for play provision, Carholme as 'poor' and the remaining wards as 'OK'</li> <li>Provide additional equipped play areas and projects developing play across a range of open spaces and neighbourhoods to meet deficiencies identified in the Play Strategy.</li> </ul>
Adult football pitches	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>No quantitative deficiency</li> <li>Qualitative deficiencies at all existing facilities.</li> </ul>
Junior football pitches	<ul style="list-style-type: none"> <li>Lincoln: 23 pitches</li> <li>West Lindsey: 12 pitches</li> </ul>	<ul style="list-style-type: none"> <li>22 additional junior football pitches to meet deficiencies identified in the Pitch Strategy</li> <li>Qualitative deficiencies at all existing facilities</li> </ul>
Mini-soccer pitches	<ul style="list-style-type: none"> <li>Lincoln: 6 pitches</li> <li>North Kesteven: 1 pitch</li> <li>West Lindsey: 8 pitches</li> </ul>	<ul style="list-style-type: none"> <li>No quantitative deficiency</li> <li>Qualitative deficiencies at all existing facilities</li> </ul>
Cricket pitches	<ul style="list-style-type: none"> <li>West Lindsey: 3 pitches</li> </ul>	<ul style="list-style-type: none"> <li>No quantitative deficiency.</li> <li>Qualitative deficiencies at all existing facilities</li> </ul>
Rugby pitches	<ul style="list-style-type: none"> <li>Lincoln: 1 pitch</li> <li>West Lindsey: 1 pitch</li> </ul>	<ul style="list-style-type: none"> <li>One additional rugby pitch</li> <li>Qualitative deficiencies at all existing facilities</li> </ul>
Village/Community Halls	<ul style="list-style-type: none"> <li>Shortfall of 19 halls</li> </ul>	<ul style="list-style-type: none"> <li>Not specified</li> </ul>

### Future Needs Relating to the Provision of Outdoor and Indoor Sports Facilities

Both the County and The City of Lincoln's sport assessments include future facilities' needs taking account of projected increases in population and higher participation rates. Please refer to the individual assessments for further details.

### National Standards for Play Provision

The Six Acre Standard (which has been reissued under the new name Planning and Design for Outdoor Sport and Play) is the most widely used standard for play provision. The standard sets quantitative guidelines for the provision of play facilities in new developments by population. It sets a minimum standard for outdoor playing space of 2.4ha (6 acres) for 1,000 people. This is sub-divided into:

- 1.6ha (4 acres) per 1,000 population of outdoor sport; and
- 0.8ha (2 acres) per 1,000 population for children's play comprising designated areas for children and young people containing a range of facilities and an environment that has been designed to provide focused opportunities for children's play and casual or informal playing space within housing areas.

The Fields in Trust accessibility criteria (walking times) and the detailed criteria relating to Local Area of Play (LAPs), Local Equipped Area of Play (LEAPs) and Neighbourhood Equipped Area of Play (NEAPs) are set out in the **Table A17c**.

**Table A17c: LAPs, LEAPs and NEAPs Detailed Criteria**

Facility	Time	Walking Distance	Radial Distance (straight line distance/radius from site centre))	Minimum size/ activity zone size	Nearest Dwelling/ house	Features
<b>Local Area of Play (LAP)</b>	1min	100m	60m	100sm <sup>2</sup>	5m from activity zone	Small, low-key games area
<b>Local Equipped Area of Play (LEAP)</b>	5min	400m	240m	400m <sup>2</sup>	10m from activity zone	5 types of equipment, small games area
<b>Neighbourhood Equipped Area of Play (NEAP)</b>	15min	1,000m	600m	1,000m <sup>2</sup>	30m from activity zone	8 types of equipment, opportunities for ball games or wheeled activities

## Saved Policies relating to Open Space Standards

### *City of Lincoln Local Plan: Policy 65B 'Play and Amenity Space in Housing Areas'*

Developers of new housing, including additions to housing stock from changes of use, will be expected to contribute to the provision, laying out, equipping and maintenance of children's' play and amenity open space on the basis of the following standard:

- Children's' play space 0.8 ha per 1000 population
- Amenity open space 0.5 ha per 1000 population

This requirement may be waived if the Local Planning Authority is satisfied that the location, scale or nature of a particular residential development is such that it will not generate or contribute to additional demands for such space

### *West Lindsey Local Plan: Policy RES 5 'Provision of play space/recreational facilities in new residential developments'*

Development proposals for new residential development including sites allocated within the Local Plan First Review will be permitted as long as informal recreational land or play space and/or associated equipment and/or built facilities are provided conforming to the minimum requirement for recreational land which is:

- i. 3% of the total site for developments of up to 20 dwellings or up to 1 hectare;
- ii. 5% of the total site for developments of over 20 dwellings or between 1 and 3 hectares;
- iii. 7.5% of the total site for developments of between 3 and 5 hectares;
- iv. 10% of the total site for development of over 5 hectares

### *West Lindsey Local Plan: Policy CRT 2 'Standards for open space sport provision'*

Within settlements of greater than 2,500 population the Council will apply the standards contained within Appendix 10 for open spaces, play and sports provision. Within settlements of population of less than 2,500 the provision of open spaces, play and sports provision will be based upon the findings of local surveys identifying deficiencies of provision.

The 2001 Census will be used as the basis for population figures when applying this policy. Settlements over 2,500 population are: Caistor 2,601; Cherry Willingham 2,947; Gainsborough 16,869; Market Rasen 3,230; Nettleham 3,514; Saxilby 3,679; Scotter 2,591; Welton 3,821

Open space with a recreational value includes sports pitches, greens and courts, training areas in the ownership of public and private bodies and playgrounds equipped for children of all ages. Also included is more informal play space within housing areas. Sport and recreation facilities and open space can form an important component of housing, major office or retail developments as well as new initiatives.

*Appendix 10:*

- *Local Greenspace: (0.2 Ha +) 400m/5 minutes walk from home*
- *Park/Green Area: (2 Ha +) 600m/7.5 minutes walk from home*
- *Playing Fields: 1km/12.5 minutes walk from home*
- *Natural Greenspace: (20 Ha +) 2km/25 minutes walk from home*
- *Open Country/Green Lung: (200 Ha+) 5km/20 minutes by bike*
- *Allotments & Shared External Space: No recommendation*
- *Local Area for Play (LAP): No specific targets*
- *Local Equipped Area for Play (LEAP): All "urban" residents to be within 400m of a LEAP*
- *Neighbourhood Equipped Area for Play (NEAP): All "urban" residents to be within 1000m of a NEAP*
- *Sports Hall (at least 3 Badminton Court size): Within 14km or 20 minutes drive time*
- *Swimming Pool: Within 14km or 20 minutes drive time*
- *Fitness Centre: Within 14km or 20 minutes drive time*
- *Squash Court: Within 14km or 20 minutes drive time*
- *Golf Course: Within 14km or 20 minutes drive time*
- *Artificial Pitch: Within 22km or 30 minutes drive time*
- *Athletics Track: Within 22km or 30 minutes drive time*
- *Sports Pitch: Within 1 km or 12.5 minutes walk time*
- *Cricket Ground: Within 1 km or 12.5 minutes walk time*
- *Tennis Court: Within 1 km or 12.5 minutes walk time*
- *Bowling Green: Within 1 km or 12.5 minutes walk time*

***North Kesteven Local Plan: Policy H4 'Public open space provision in new residential developments'***

*Planning permission will be granted for a new housing development provided that provision is made for public open space to at least the following standards:*

- *5 m<sup>2</sup> of amenity open space per person;*
- *8m<sup>2</sup>metres of children's play space per person; and*
- *16m<sup>2</sup> metres of outdoor sport facilities per person.*

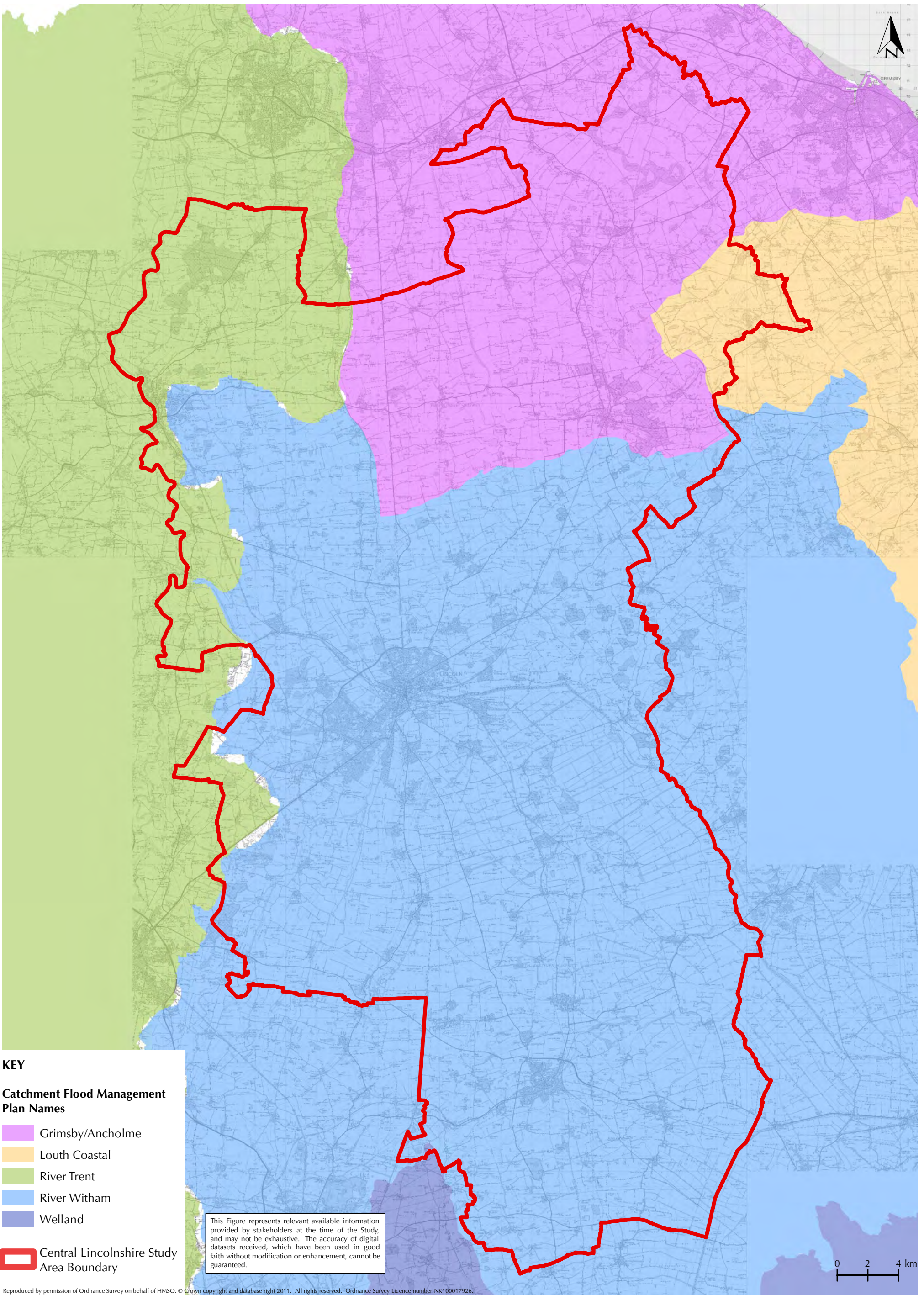
*Lesser provision will be acceptable if it can be proved that the location, scale or nature of a particular housing development is such that it will not generate or contribute to additional demands for such space*



## **APPENDIX 18**

### **CATCHMENT FLOOD MANAGEMENT PLAN BOUNDARIES**






**KEY**

**Catchment Flood Management Plan Names**

- Grimsby/Ancholme
- Louth Coastal
- River Trent
- River Witham
- Welland

 Central Lincolnshire Study Area Boundary

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**APPENDIX 19**

**GUIDANCE FROM THE ENVIRONMENT AGENCY  
ON MANAGING SURFACE WATER AND USING WATER WISELY**

(Source: Building a Better Environment: a guide for developers – practical advice on adding value to your site. 2006, Environment Agency)





# building a better environment

A guide for developers

Practical advice on adding value to your site

We are the Environment Agency. It's our job to look after your environment and make it **a better place** – for you, and for future generations.

Your environment is the air you breathe, the water you drink and the ground you walk on. Working with business, Government and society as a whole, we are making your environment cleaner and healthier.

The Environment Agency. Out there, making your environment a better place.

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## 2.2.2 Managing surface water

A well-designed and managed surface water system can save you money and add to the visual attractiveness of the site.



The Government's planning policy on development in the floodplain highlights the important role that SUDS can play and introduces a general expectation for their use at all sites. Surface water disposal is a material planning consideration. Local authorities increasingly expect developers to submit proposals that incorporate the SUDS approach.

Planning a site so that water is removed from it as quickly as possible can harm the environment. It can increase both water pollution and the risk of flooding to the site itself and elsewhere downstream. It can cause damage to wildlife and river habitats. In areas with combined drainage systems, surface water entering the system causes polluting storm discharges and overloads treatment plants.

### Sustainable drainage systems

To make sure your site is not polluting the environment or increasing the risk of flooding, you should use the sustainable drainage systems approach to drainage, otherwise known as SUDS.

This approach provides a drainage solution that takes into account the:

- amenity benefits;
- quantity of surface water run-off;
- quality of surface water run-off.

By doing so it helps to protect and improve wildlife in the area, and improve the landscape and attractiveness of the site.

SUDS use a wide range of techniques that have been tried and tested on projects throughout England and Wales. They can be applied to a variety of schemes, from small developments through to major residential, leisure, commercial or industrial operations with large areas of hard standing and roof. A particular benefit is that they can be successfully retro-fitted to existing developments. →

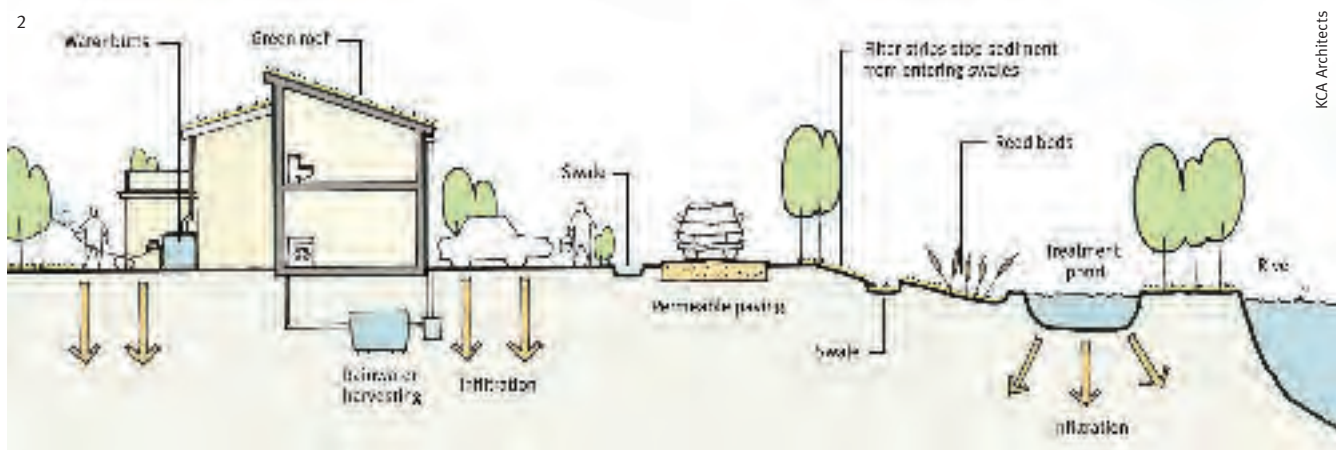
1. At Sanders Garden World, rainwater is infiltrated through the permeable paving to be re-used for watering plants.
2. SUDS can look attractive and natural.





1. Surface water is drained into a pond in this development in Bicester.

2. There are various options for SUDS that you could use on your site. This diagram illustrates a few of these and how they can work together. Use CIRIA guidance to help you choose the right design for your site.



### Our advice

You will get the best results if you consider the use of SUDS options early in the site evaluation and planning process, not just at the detailed design stage. This will ensure drainage costs are adequately considered at the start of the development. A well-designed SUDS scheme may even save you money. For example, by avoiding the need for gully pots or for constructing surface water sewers.

There will be a SUDS technique to suit your site – whether it is using infiltration, swales and ponds, lined wet ponds or green roofs. To determine the right technique you should first establish the soil conditions and hydrology of the site and use the results of your investigations to support your drainage proposals. Your choice can also be significantly influenced by the quality

of the land (whether it is affected by contamination), the need to protect vulnerable groundwater sources and the permeability of the soil.

SUDS solutions are most cost effective when designed to work with the natural drainage pattern of your site. For example, you can design them to use existing ditches or natural depressions for swales and ponds. You can design them to form part of hard and soft landscaped areas.

Ponds and green spaces will provide habitats for wildlife to flourish, reduce pollution and provide areas for people to enjoy, adding value to your site. Even in the most constrained site you can use green roofs to reduce surface water run-off (see section 2.2.8 for the other benefits of using green roofs), or to collect rainwater for flushing toilets or watering gardens (see section 2.2.3). →



1. Use permeable paving rather than concrete. This type of paving allows rainwater to infiltrate into the ground, topping up groundwater supplies. By reducing the rate of surface water run-off it can help to reduce the risk of flooding.
2. Peabody Trust used sedum roofs on this social housing development in Fulham, London to reduce surface water run-off.
3. An attractive finish to SUDS at Wheatley.

### Maintaining drainage systems

In the early stages of your site design, consider how the drainage system will be adopted and maintained in the future. It is likely these decisions will influence the design just as much as the technical considerations.

#### → also see

-  2.2.1 Managing the risk of flooding
-  2.2.3 Using water wisely
-  2.2.4 Wildlife and green space
-  2.2.5 Preventing pollution
-  2.2.7 Land affected by contamination
-  2.2.8 Sustainable construction
- 3.1 Environment Agency permissions



→ See 3.2 for the full environmental checklist

→ see 3.1 for permissions

## Managing surface water what we expect of you

- Before you plan your site, consider how you can manage the **rate of surface water run-off** so that it is similar to the conditions before the development. Also consider the effect this run-off will have on any receiving watercourse.
- Speak to us about the surface water drainage proposals for your site. We can tell you what **consents** you will need, which types of SUDS are unsuitable and whether you will have to take **special precautions** to prevent pollution or reduce infiltration.
- Where infiltration techniques are not possible, or where space is limited, you can still use features such as **green roofs** to reduce the rate or total amount of run-off.
- Use **CIRIA** guidance to inform your choice of SUDS design for the development.
- Demonstrate in your **flood risk assessment** that you will deal with surface water by installing the best combination of SUDS techniques for your site.
- Whilst constructing your site, protect **adjoining areas** from flooding.
- You will need to consider your **timetable for construction**. Where permeable surfaces are installed, you need to ensure they are not blocked with silt from site activities.
- Ensure you have an adequate **management and maintenance system** in place.

### → more information

**Sustainable drainage systems (SUDS): A guide for developers**, Environment Agency.

There is a wealth of SUDS guidance on the CIRIA website [www.ciria.org.uk/suds](http://www.ciria.org.uk/suds). This includes the **Interim code of practice for sustainable drainage systems** by the National SUDS Working Group.

Details of green roofs at [www.livingroofs.org](http://www.livingroofs.org)

Links to these documents plus other useful information are on our website:  
[www.environment-agency.gov.uk/developers](http://www.environment-agency.gov.uk/developers)





## Case study Soakaways help reduce run-off

Ravenswood, Ipswich  
1999–2000



**Developers**  
Bellway Homes

**Benefits**  
Reduces risk of flooding;  
replenishes groundwater  
levels; creates habitat for  
wildlife; will save £600,000  
in its lifetime compared  
with a piped system.

### Site background

This former airfield off Nacton Road in Ipswich is now a village-style development of approximately 1,000 homes. It includes a school, sports centre, leisure areas, public open space, plus a commercial and retail area.

### The scheme

The developers, Bellway Homes, designed the Ravenswood site so that all surface water run-off was drained through a combination of soakaways and infiltration basins. Without these

systems, the traditional piped discharge from the site during a one-in-100-year storm event would have been 6,600m<sup>3</sup> of water. Using SUDS, the discharge for the same flood event is now zero.

Houses and driveways are connected to individual soakaways. The roads are drained by a piped system that discharges to the infiltration basins running along the main boulevards. →

1. Rainwater is drained from the roads and discharged into these attractive infiltration basins.



### Natural drainage

This infiltration scheme uses the natural drainage path of the soil. Its permeable deep water table provide a large unsaturated zone that can accommodate this surface water. This technique helps groundwater levels to replenish, and the infiltration basins create wildlife corridors through the development. Using finances from commuted sums,

Ipswich Borough Council manages the SUDS as public open space. Over its lifetime the scheme has the potential to save £600,000 in construction and maintenance costs compared with a piped system.

1–3. The scheme is attractive, low maintenance, and creates corridors for wildlife through the development.





## 2.2.3 Using water wisely

Far too many developments use more water than they should. Taking steps to save water can save you money and protect supplies.



There is a shortage of water in the south and east of England. Climate change and population growth are placing increasing demands on our water supply. Our changing lifestyles also mean that the amount of water we use each day is increasing. Overuse leads to impacts on wildlife and the wider environment. It can lead to water restrictions.

Building water-saving measures into your development can do a lot to reduce overall demand. They will be viewed positively by the Environment Agency, water companies and planning authorities.

### Water efficiency targets

The new draft Code for Sustainable Homes will introduce various targets for water efficiency. These targets will allow buyers to compare properties for how water efficient they are. In London the Mayor has set a minimum water efficiency standard for new residential developments of 110 litres, per head, per day. Our own research has shown that this standard can be achieved in new buildings at no extra cost. →

#### → also see



2.2.2 Managing surface water



2.2.8 Sustainable construction

3.1 Environment Agency permissions

1. Reservoirs were seriously low in south-east England in 2005/6, following well over a year of below-average rainfall.





1. Rainwater harvesting systems allow rainwater to be re-used for flushing toilets, washing clothes and watering the garden.
2. Sales of water butts soared after the hosepipe bans during the drought in summer 2006.
3. Climate change will bring longer, drier summers. As a result, water shortages may be more common in the future.

### Techniques to save water

You can save water in your development by installing or using:

- water efficient appliances and fittings, such as 'A-rated' washing machines, low-flow taps and showers and low or dual-flush toilets;
- leak-detection systems for major supplies;
- rainwater harvesting and re-use systems;
- drought-resistant landscaping.

Even simple measures can help. For example, reducing the length of hot water pipe-work will mean people won't need to 'run' the water.

### Get permission

As water supplies are so precious, it is vital we protect them properly. We do this through a system of consents.

You must contact us if you are likely to be:

- abstracting water from surface or underground sources;
- interrupting the flow or impounding water from a watercourse;
- drilling any boreholes within 16m of any flood defence structure;
- discharging to a watercourse or into the ground. →

1



2

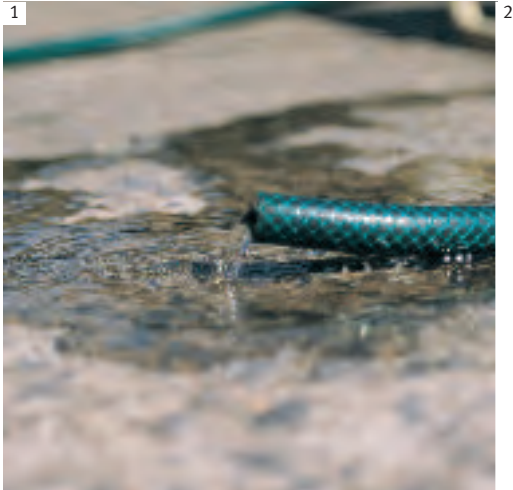


3





Your development can play a vital role in securing future supplies. Work closely with the water companies to plan new supplies and design water efficient homes.



1. Encouraging consumers to use less water is one solution to the problem. Another is to make sure all developments are made as water efficient as possible.

2. For most homes, installing a water meter reduces the water bills and the amount of water the household uses.

### New water supplies

Introducing new water supplies can take considerable time to plan and bring on stream. If you want a company (usually a water company) to supply water, liaise with them while you are still choosing your site – don't just assume they can provide your development with the necessary water and supply infrastructure.

Contact us for valuable information on water resources, water companies, water efficiency and specific supply and infrastructure issues. We can show you maps of Groundwater Source Protection Zones and explain possible restrictions on building in them.



→ see 3.2 for the full environmental checklist

→ see 3.1 for permissions

## Using water wisely what we expect of you

- Talk to the local planning authority and relevant water company to ensure they can provide the water **supply infrastructure** and **enough water** for the lifetime of your development.
- Contact the local Environment Agency office for advice on our **consents**. You must obtain all necessary consents before you start work on the site.
- Design your development to at least meet the minimum level of the **Code for Sustainable Homes**.
- Consider **water and energy-efficient appliances and fittings** in your development such as ‘A-rated’ washing machines and low or dual-flush toilets. In London the Mayor has set a minimum water efficiency standard for all new developments of 110 litres, per head, per day.
- If your development is large, consider **leak-detection**, **rainwater-harvesting** or even **rainwater re-use** systems. However you must understand their management and maintenance requirements.
- Provide **water butts** and use **drought-resistant landscaping** to keep your development looking good.

### → more information

**Conserving water in buildings**, Environment Agency. Includes 11 fact cards on saving money through water efficient technology and a list of suppliers.

**Sustainable Homes: The financial and environmental benefits**, Environment Agency.

**Water Savings Trust feasibility study: An options assessment and evaluation**, Environment Agency.

**Harvesting rainwater for domestic use: An information guide**, Environment Agency.

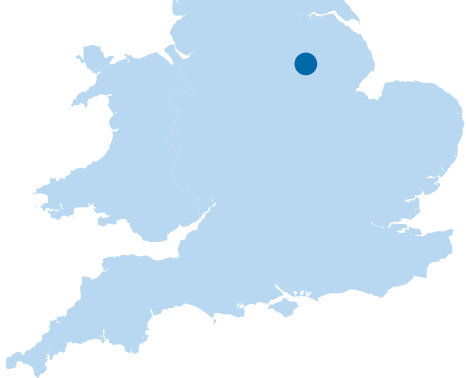
**Waterwise: Good for business, great for the environment**, Environment Agency.

BREEAM (BRE Environmental Assessment Method) is the world’s most widely used means of reviewing and improving the environmental performance of buildings. Visit [www.bre.co.uk](http://www.bre.co.uk) for details of schemes and EcoHomes checklists.

The Water Technology List on [www.eca-water.gov.uk](http://www.eca-water.gov.uk) provides a comprehensive list of approved water using products.

[Links to these documents plus other useful information are on our website: www.environment-agency.gov.uk/developers](http://www.environment-agency.gov.uk/developers)





## Case study A shining example of water efficiency

Millennium Green, Nottinghamshire  
1998–2000



**Developers**  
Gusto Homes

**Benefits**  
Rainwater can be harvested to provide 18 days' supply; the site uses 50 per cent less water each year; each household uses 50,000 litres less water each year.

### Site background

The overall winner of the Environment Agency's 2003 Water Efficiency Awards was Gusto's Millennium Green project near Newark. The development was awarded this for using a variety of water-saving techniques and incorporating other environmental measures into the site.

### The scheme

Designed and developed by Gusto Homes – a small, privately owned house-building company – 24 houses and an office use an automated rainwater-harvesting system, halving the amount of water they use. The system has proved so successful that it is sold by Gusto to other developers to be used as part of their approach to sustainable drainage systems.

The buildings were fitted with an advanced system that the company developed itself called Freerain. The system allows enough water to be stored in underground tanks for 18 days' supply. This harvested water is not for drinking, but is used for flushing toilets, washing machines and the garden. If the supply becomes low, the tank is automatically topped-up by mains water. →

1. The houses on the Millennium Green site use harvesting systems to recycle rainwater for flushing toilets, washing machines and watering gardens.
2. As a whole, the site uses half of what it would use without these systems in place.

'Not only have we helped our householders save water, but we have also been able to raise general awareness of the potential for building water efficiency measures into new homes.' Gusto Homes



Other environmental features of the development are:

- dual-flush toilets;
- aerated taps and shower units;
- solar water heaters;
- heat-recovery air conditioning.

Following detailed analysis of two homes on the site, it was found that together the harvesting system and the water efficient appliances reduced water use by 50,000 litres each year. Gusto was able to make even more savings by reducing the size of the water infrastructure such as the storm drains and soakaways.

### Using sustainable drainage systems

More recently the company has developed a system integrating rainwater harvesting with a sustainable drainage approach. This system allows overflow from the storage tank to feed into another tank instead of flowing into soakaways. This water can then be released at a controlled rate and manner.

### Sharing good practice

As a result of the success of the Millennium Green project, Gusto provides complete rainwater harvesting systems to other development companies. They helped establish the Association of Rainwater Recycling Companies whose aim is to encourage high standards in designing and providing similar systems.

**1.** The Freerain rainwater harvesting system is fully automated. If the tanks become low, they are automatically topped-up with mains water.

**2.** The houses are installed with solar panels on the south-facing roofs to generate electricity.

**3.** Mr and Mrs Woodhurst moved over 100 miles to the Gusto development, partly so they could live somewhere with green credentials. They say the move has drastically reduced their energy and water bills.



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**APPENDIX 20**  
**SUITABILITY OF NATURAL ADAPTATION**  
**INTERVENTIONS IN THE EAST MIDLANDS**

## SUITABILITY OF NATURAL ADAPTATION INTERVENTIONS IN THE EAST MIDLANDS

The Table below is taken from the 'Adapting through Natural interventions' (2010, AECOM for Climate East Midlands)

The biodiversity context in the East Midlands has been examined within this study, together with concurrent strategies and plans for delivery of green infrastructure to develop a series of natural adaptation interventions that are believed to be suitable to the ecological and delivery context in the Region. These interventions are shown in the table below.

Table E1: Suitability of Natural Adaptation Interventions in the East Midlands

Intervention	Description	Pros	Cons	Adaptation effect	Suitable Locations	Deliverability
Living walls	Growth of climbers or installation of planted modules	Effective against heat islands, popular	Usually require irrigation.	Summer cooling	Inner cities	High – easy to retrofit
Trellises, pergolas	Growth of climbers on supporting structures	Effective against heat islands, popular	Non traditional	Shade, summer cooling	Inner cities	High – can be retrofitted.
Extensive green roofs	Low growing vegetation on shallow substrate on roof.	Part of SUDS. Effective against heat islands. Biodiverse, multifunctional	Weight issues on lightweight structures.	Summer cooling, improved drainage, increase in urban biodiversity	Inner cities, industrial sites	High with new build
Intensive green roofs	Roof gardens	Accessible	Usually require irrigation.	Summer cooling, drainage, Outdoor respite in heat waves	Inner cities, residential, office blocks	High with new build
Street trees	Standards selected for suitability.	Can be integrated with SUDS	Limited space available	Shade, cooling, drainage, biodiversity	Urban	High
Gardens	Private open spaces (could include trees, SUDS features)	Close to dwellings	Integration of functionality may be a challenge	Shade, cooling, drainage, biodiversity Outdoor respite in heat waves.	Urban, suburban	Medium – high urban land costs limit potential
Local parks, amenity spaces	Lawns, paving, trees, shrubberies	Sufficiently large to maintain pleasant microclimate	May have limited water retention capability. Low biodiversity.	Shade, cooling, drainage, biodiversity Outdoor respite in heat waves.	Urban, suburban. Part of new settlements	Medium - high urban land costs limit potential

Water features	Fountains, formal pools	Instant relief in heat waves	Use energy, potable water. High maintenance. H&S concerns	Summer cooling. Respite in heat waves.	Public realm of inner cities and towns	Low – high cost and maintenance issues
Sustainable Drainage Systems (SUDS)	Drainage that mimics nature. Swales, pools, soakaways etc.	Designed to cope with excess water. Cooling and biodiverse.	Limited space. Management issues	Drainage, summer cooling.	Urban, suburban. Part of new settlements	Medium – space problems in inner cities. Needs innovative design
Sports Facilities	Playing fields, courts etc	Design could be modified to include SUDS and other features	Tend to be artificially drained and sterile	Microclimatic and drainage benefits possible	Urban, sub-urban	High because of primary function. Must be designed to be multi-functional
River Restoration Schemes	Removal of hard man-made banks	Can provide access, open space habitat, water quality improvements. Part of a network.	Limited space available and cost	Flood, drainage, cooling and biodiversity benefits	Urban, suburban, rural	Medium – Complex and high cost
District, regional parks (e.g. Country Parks)	Grasslands, trees, woodland but also space for water and habitat	Policy requirement for open space. Could be integrated into SUDS, river restoration	Limited space available in urban areas.	Shade, cooling, drainage, biodiversity Outdoor respite in heat waves.	Urban, Suburban, New settlements	High – required as GI component of growth
Greenways	Linear parks primarily for cycling, walking	Can include SUDS, part of ecological networks	May be remote from urban core	Drainage, biodiversity. Can be shaded cycling/walking routes.	Sub-urban, rural	High – as part of sustainable transportation projects
Floodplain restoration	Reconnection of and restoration of floodplain wetlands (washlands, meadows and wet woodland)	Important for flood alleviation	Fragmented land ownership. Cost	Flood management and biodiversity.	Suburban, rural	Medium – Complex and high cost
Woodland (Forests)	Strategic plantations as part of catchment management and provision of GI networks	Important for flood alleviation, biodiverse, multifunctional	Fragmented land ownership.	Flood management and biodiversity.	Suburban, rural	High – Many high profile projects already underway which could be expanded.
Restoration of peat bogs and other wetlands (e.g. wet woodland, wet heath)	Blocking of drains and rewetting of historic wetlands	Important for flood alleviation and maintenance of water supplies	Usually large scale, long term and expensive	Flood management, water supply security and biodiversity	Uplands, rural, river valleys, coastal	Medium – complex and high cost
Modification of farming practices and land management practices	Soil building techniques, agroforestry, short-rotation coppice, stream buffers, ponds, etc	Catchment management approach to flood alleviation, maintenance of water quality, biodiversity	May be contrary to commercial considerations	Flood management, water quality and biodiversity	Rural	High – supported by environmental stewardship schemes

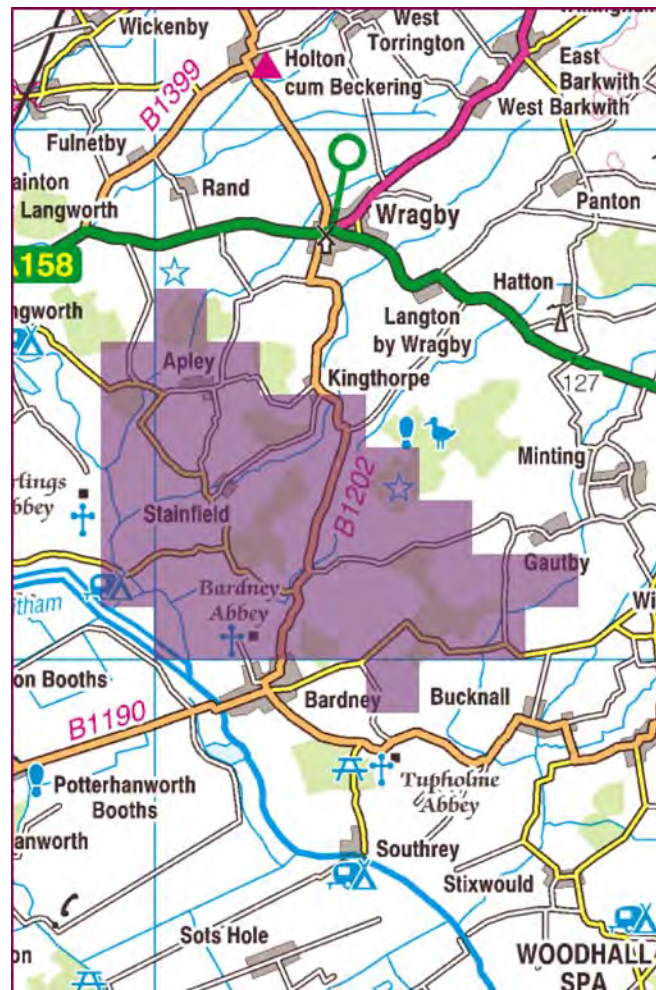




## **APPENDIX 21 HIGHER LEVEL STEWARDSHIP TARGET AREA STATEMENTS**

(Source: East Midlands Higher Level Stewardship Theme Statement and individual HLS Target Area Statements – <http://www.naturalengland.org.uk/ourwork/farming/funding/es/hls/targeting/default.aspx>)

## Limewoods Target Area



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Total Area: 3,900ha

### Why is the Limewoods Target Area a priority for Higher Level Stewardship (HLS) management?

The **Limewoods Target Area** is important for its significant contribution to the following Higher Level Stewardship objectives: **Biodiversity** and **Historic Environment**.

This area falls between Apley, Gaultby and Bardney and is focussed on the nationally important Lincolnshire Limewoods. Within this area important concentrations of **ancient semi-natural woodland** and **old meadows and pastures** occur as a mosaic within woodland blocks. The surrounding area also



has nationally important assemblages of **arable** and **wetland birds**. Finally this area is of significant historic importance and contains a range of **medieval features** including **priories**, **abbeys** and associated **earthworks**.

## What do I need to do to get an agreement?

Applications must perform **ONE\*** or more of the following land management activities:

- Maintain/Restore/Create important areas of the following priority habitats: **old meadows & pastures**, **wet woodland**, **rush pastures**, **ancient semi-natural woodlands**<sup>1</sup>
- Provide habitat for the following range-restricted farmland birds:

**Arable Birds:** Provision of nesting habitats, summer food and winter food wherever three or more of the following arable birds species occur – **lapwing (breeding)**, **grey partridge**, **yellow wagtail**, **tree sparrow**, **turtle dove & corn bunting** or (with strong supporting evidence) the holding is known to support important regional breeding populations for any of these species<sup>2</sup>

AND/OR

**Wet Grassland Birds:** Provision of nesting habitats and summer food where three or more the following wet grassland species breed – **lapwing**, **snipe**, **redshank**, **curlew** and **yellow wagtail** or (with strong supporting evidence) the holding is known to support important regional breeding populations for any of these species<sup>2</sup>

- Positive management of **visible and below ground archaeological and historic features** that are assessed as a priority in the region such as **medieval priories**, **abbeys** and **associated earthworks**<sup>3</sup>
- Maintain or restore **historic buildings** that are assessed as a priority in the region<sup>4</sup>
- **Create new permissive access** where there is identified demand or need in order to link people with places, enhance existing networks and/or provide opportunity to improve people's understanding of the farmed environment through **educational access**

If you think that you can help Natural England achieve any of the above objectives please contact your local office using the number below. Natural England currently hold additional information about environment features on your holding which will be used to identify priority holdings, as a result of this, please note that you may be contacted directly by us.

**Please note:** \* applications seeking to maintain restore field boundaries must be accompanied by another land management activity from the list provided

Footnotes:

<sup>1</sup>creation of the habitats listed above will be considered where there are significant opportunities to extend, link or buffer important areas of existing habitat to reduce the impacts of fragmentation.

<sup>2</sup>Provision of nesting habitats, summer food and winter food (for arable birds) will typically include a combination of the following management : field corner management; provision of beetle banks, wildlife seed mixtures (both wild bird food and pollen & nectar mixes), fallow nesting plots; conservation headlands; uncropped/cultivated margins, sowing of low-input spring cereals and hedgerow management. Provision of nesting habitats and summer food (for wetland birds) will typically require specific management/restoration of existing wet grassland and management of water levels which would provide the right sward height and conditions for this assemblage of species. Maps showing the location of key areas believed to support the species listed above are available at <http://www.natureonthemap.org.uk>.

<sup>3</sup>This statement refers to both designated (Scheduled Monuments) and undesignated historic environment features that have been prioritised in accordance with advice from Natural England, English Heritage and local authority archaeologists. It aims to ensure positive management of visible features such as earthworks, standing stones and structures, and action for the most vulnerable archaeological sites that are currently in cultivation, for example by reducing the depth of damaging cultivations through minimum tillage or direct drilling where this offers a suitable level of protection. It also includes the maintenance of below-ground archaeology under permanent uncultivated vegetation and maintaining sufficient waterlogged conditions to preserve organic archaeological material in wetlands.

<sup>4</sup>Natural England has a method of prioritising historic buildings by assessing them for their significance, vulnerability and value for money. To check the eligibility of your building, and to find out if your building is a priority for action, please contact Natural England.

For more information on Higher Level Stewardship please see our website: [www.naturalengland.org.uk](http://www.naturalengland.org.uk)

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### Why is the Lincolnshire Wolds Target Area a priority for Higher Level Stewardship (HLS) management?

This area extends from Kirmington to Revesby and contains approximately 75% of the **Lincolnshire Wolds Area of Outstanding Natural Beauty** (AONB). The area is noted for its biodiversity occur, particularly several nationally scarce **chalk streams**, designated for their importance, and **lowland**



**meadows and chalk grassland.** There is a significant concentration of high value and priority archaeological features including **medieval earthworks** and **Neolithic and Bronze age barrows**. Also, there are a number of large estates in the area, which provides the area with many **historic parklands**. This area forms part of the **Lincolnshire Coast Rivers coastal catchment** and is a priority for resource protection due to its several water quality issues.

## What do I need to do to get an agreement?

Applications must perform **ONE\*** or more of the following land management activities:

- Maintain/Restore/Create important areas of the following priority habitats: **grazing marsh, rush pastures on acid flushes, wet woodland, wood pastures and parkland, ancient and/or species-rich hedgerows, old meadows and pastures** and **limestone grasslands** along the south-west facing scarp from Red Hill to Partney<sup>1</sup>
- Positive management of **visible and below ground archaeological and historic** features that are assessed as a priority in the region such as **medieval earthworks, Neolithic and Bronze Age barrows**<sup>2</sup>
- Protect, maintain and restore **historic landscapes and their features**, such as **parkland** where they are assessed as a priority in the region<sup>3</sup>
- Maintain or restore **historic buildings** that are assessed as a priority in the region<sup>4</sup>
- Implement land management practices and capital works to minimise soil erosion from **land at risk of generating diffuse pollution in the Lincolnshire Coast Rivers priority catchment**, where there is evidence that this is occurring<sup>5</sup>
- Restore **characteristic landscape features of the Lincolnshire Wolds AONB**, including, **hedgerow trees** in ridges and valleys and **tree clumps** in the chalk wolds
- Create **new permissive access** where there is identified demand or need in order to link people with places, enhance existing networks and/or provide opportunity to improve people's understanding of the farmed environment through **educational access**

If you think that you can help Natural England achieve any of the above objectives please contact your local office using the number below. Natural England currently hold additional information about environment features on your holding which will be used to identify priority holdings, as a result of this, please note that you may be contacted directly by us.

**Please note:** \* applications seeking to maintain restore field boundaries must be accompanied by another land management activity from the list provided

Footnotes:

<sup>1</sup>creation of the habitats listed above will be considered where there are significant opportunities to extend, link or buffer important areas of existing habitat to reduce the impacts of fragmentation.

<sup>2</sup>This statement refers to both designated (Scheduled Monuments) and undesignated historic environment features that have been prioritised in accordance with advice from Natural England, English Heritage and local authority archaeologists. It aims to ensure positive management of visible features such as earthworks, standing stones and structures, and action for the most vulnerable archaeological sites that are currently in cultivation, for example by reducing the depth of damaging cultivations through

minimum tillage or direct drilling where this offers a suitable level of protection. It also includes the maintenance of below-ground archaeology under permanent uncultivated vegetation and maintaining sufficient waterlogged conditions to preserve organic archaeological material in wetlands.

<sup>3</sup>This statement refers to both designated (Registered Parks and Gardens, World Heritage Sites and Registered Battlefields) and undesignated historic environment features that have been prioritised in accordance with advice from Natural England, English Heritage and local authority archaeologists. It aims to significantly address the condition of historic landscapes through the proactive maintenance or restoration of structures or features that make a major contribution to the design intentions, character or feel of the area, as well as providing for their biodiversity and amenity value.

<sup>4</sup>Natural England has a method of prioritising historic buildings by assessing them for their significance, vulnerability and value for money. To check the eligibility of your building, and to find out if your building is a priority for action, please contact Natural England

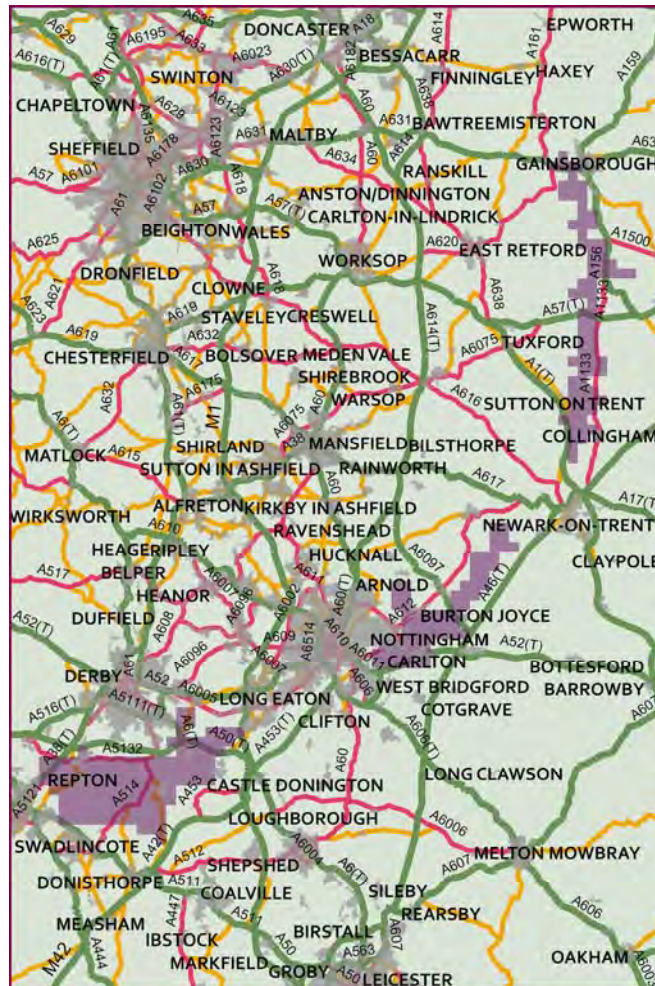
<sup>5</sup>Options or capital items that improve infiltration and reduce runoff may also provide benefits for flood management

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## Trent Target Area Statement



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Total Area: 26,900ha

### Why is the Trent Target Area a priority for Higher Level Stewardship (HLS) management?

The **Trent Target Area** is important for its significant contribution to the following Higher Level Stewardship objectives: **Biodiversity**, **Historic Environment** and **Access**.

The area follows the River Trent between Burton on Trent and Gainsborough covering a significant proportion of the regions existing **grazing marsh** habitat and provides important habitats for several species of important farmland bird, including **lapwing**, **snipe** and **redshank**. Lagoons created by the aggregates industry from sand and gravel extraction have provided regionally important habitats for **over**



**wintering wildfowl** and **breeding bird** populations and parts of the area have been identified as being priority areas for provision of **permissive access**. The Trent area is particularly rich in important historic features, associated with human use and occupation of the Trent and its floodplain over several millennia.

## What do I need to do to get an agreement?

Applications must perform **ONE\*** or more of the following land management activities:

- Maintain/Restore/Create the following priority habitats: **wood-pasture and parkland, old meadows and pastures, heathland and acid grassland** on coversands, **grazing marsh, fens, reedbeds, wet woodland and eutrophic standing waters**<sup>1</sup>
- Provide habitat for the following range-restricted farmland birds:

**Arable Birds:** Provision of nesting habitats, summer food and winter food wherever three or more of the following arable birds species occur – **lapwing (breeding), grey partridge, yellow wagtail, tree sparrow, turtle dove & corn bunting** or (with strong supporting evidence) the holding is known to support important regional breeding populations for any of these species<sup>2</sup>

AND / OR

**Wet Grassland Birds:** Provision of nesting habitats and summer food where three or more the following wet grassland species breed – **lapwing, snipe, redshank, curlew, yellow wagtail** or (with strong supporting evidence) the holding is known to support important regional breeding populations for any of these species<sup>2</sup>

- Positive management of **visible and below ground archaeological and historic features** that are assessed as a priority in the region such as **prehistoric, Roman and medieval settlement features**<sup>3</sup>
- Protect, maintain and restore **historic landscapes and their features**, such as parkland where they are assessed as a priority in the region particularly around **Calke, Melbourne, Staunton Harold and Bretby**<sup>4</sup>
- Maintain or restore **historic buildings** that are assessed as a priority in the region<sup>5</sup>
- Create **new permissive access** where there is identified demand or need in order to link people with places, enhance existing networks and/or provide opportunity to improve people's understanding of the farmed environment through **educational access**. Particularly where this provides new circular access routes utilising existing public rights of way and new accessible public open green space, especially between **Swarkstone and Gunthorpe**.

If you think that you can help Natural England achieve any of the above objectives please contact your local office using the number below. Natural England currently hold additional information about environment features on your holding which will be used to identify priority holdings, as a result of this, please note that you may be contacted directly by us.

**Please note:** \* applications seeking to maintain restore field boundaries must be accompanied by another land management activity from the list provided

Footnotes:

<sup>1</sup>creation of the habitats listed above will be considered where there are significant opportunities to extend, link or buffer important areas of existing habitat to reduce the impacts of fragmentation.

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<sup>3</sup>This statement refers to both designated (Scheduled Monuments) and undesignated historic environment features that have been prioritised in accordance with advice from Natural England, English Heritage and local authority archaeologists. It aims to ensure positive management of visible features such as earthworks, standing stones and structures, and action for the most vulnerable archaeological sites that are currently in cultivation, for example by reducing the depth of damaging cultivations through minimum tillage or direct drilling where this offers a suitable level of protection. It also includes the maintenance of below-ground archaeology under permanent uncultivated vegetation and maintaining sufficient waterlogged conditions to preserve organic archaeological material in wetlands.

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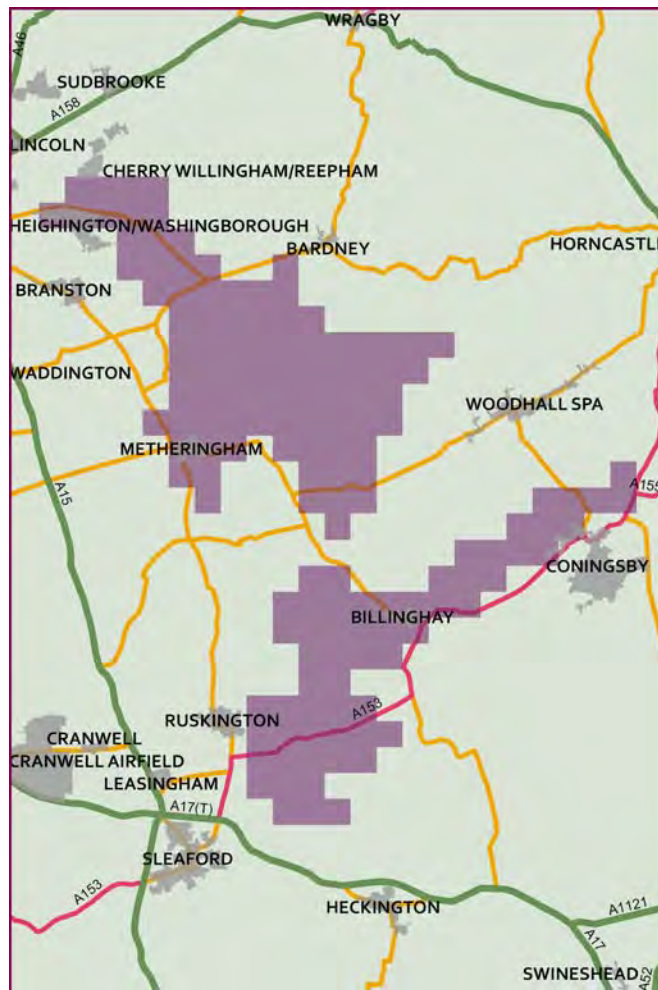
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# Witham Target Area Statement



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Total Area: 14,500ha

### Why is the Witham Target Area a priority for Higher Level Stewardship (HLS) management?

The **Witham Target Area** is important for its significant contribution to the following Higher Level Stewardship objectives: **Biodiversity**, **Resource Protection** and **Access**.

This area extends between Cherry Willingham, Tattershall and Ewerby and includes the productive arable fenland of the Witham valley below Lincoln to Tattershall and the dip slope villages to the west of the valley floor. Throughout this area nationally important assemblages of **arable and breeding wading**

V1.0

**birds** occur along with locally important areas of **floodplain grazing marsh**. This area is also a priority for resource protection as it contains peat soils that are vulnerable to wind erosion through arable cultivation. There are also opportunities for new **permissive access** creation due to the proximity to Lincoln.

## What do I need to do to get an agreement?

Applications must perform **ONE\*** or more of the following land management activities:

- Maintain/Restore/Create the following priority habitats: **fen, limestone and dry acid grassland, woodland pasture and parkland, ancient semi-natural woodland** but especially **grazing marsh** and **old meadow and pasture**<sup>1</sup>
- Provide habitat for the following range-restricted farmland birds:

**Arable Birds:** Provision of nesting habitats, summer food and winter food wherever three or more of the following arable birds species occur – **lapwing (breeding), grey partridge, yellow wagtail, tree sparrow, turtle dove & corn bunting** or (with strong supporting evidence) the holding is known to support important regional breeding populations for any of these species<sup>2</sup>

AND / OR

**Wet Grassland Birds:** Provision of nesting habitats and summer food where three or more the following wet grassland species breed – **lapwing, snipe, redshank, curlew, yellow wagtail** or (with strong supporting evidence) the holding is known to support important regional breeding populations for any of these species<sup>2</sup>

- Positive management of **visible and below ground archaeological and historic** features that are assessed as a priority in the region<sup>3</sup>
- Maintain or restore **historic buildings** that are assessed as a priority in the region<sup>4</sup>
- Implement land management practices and capital works to minimise soil erosion from **land at risk of generating diffuse pollution** where there is evidence that this is occurring<sup>5</sup>
- **Implement land management practices to reduce or protect loss of peat** primarily through wind erosion, where land at risk of erosion has been identified
- Create **new permissive access** where there is identified demand or need in order to link people with places, enhance existing networks and/or provide opportunity to improve people's understanding of the farmed environment through **educational access**. Particularly around the east side of Lincoln. Circular routes to link with the **Water Rail Way** (Lincoln to Tattershall Bridge section), and to habitat creation schemes will also be considered.

If you think that you can help Natural England achieve any of the above objectives please contact your local office using the number below. Natural England currently hold additional information about environment features on your holding which will be used to identify priority holdings, as a result of this, please note that you may be contacted directly by us.



**Please note:** \* applications seeking to maintain restore field boundaries must be accompanied by another land management activity from the list provided

Footnotes:

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<sup>5</sup>Options or capital items that improve infiltration and reduce runoff may also provide benefits for flood management

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## **APPENDIX A22 GLOSSARY**

## **GLOSSARY**

### **Ancient woodland**

Woods that are believed to have been continuous woodland cover since at least 1600 AD

### **Area action plan (AAP)**

An AAP used to provide a planning framework for areas of change and areas of conservation. They have the status of development plan documents.

### **Biodiversity action plan (BAP)**

BAPs are internationally recognised plans addressing threatened species and habitats, designed to protect and restore biological systems. The original impetus for these plans derives from the 1992 Convention on Biological Diversity. The principal elements of a BAP typically include (a) preparing inventories of biological information for selected species or habitats; (b) assessing the conservation status of species within specified ecosystems; (c) creation of targets for conservation and restoration; and (d) establishing budgets, timelines and institutional partnerships for implementing the BAP

### **Characteristic**

A distinctive element of the landscape that contributes to landscape character for instance a particular hedgerow pattern or sense of tranquillity

### **Climate change adaptation**

The ability of a place to adapt to both extreme weather events and long term changes to climate patterns

### **Conservation area**

An area designated by a local authority under the Town and Country Planning (Listed Buildings and Conservation Areas) Act 1990 in recognition of its special architectural or historic interest.

### **Coppice**

A traditional form of woodland management where trees are cut regularly on a cycle to promote growth from their bases

### **County wildlife site (CWS)**

CWSs are sites that have been identified for their local wildlife value. County Wildlife Sites are an essential part of creating a connected landscape of wildlife buffers, corridors and stepping stones so that the countryside is more resilient to the pressures of modern living and climate change. Most sites are in private ownership and their long-term survival depends upon the interest and goodwill of their land managers and owners.

### **Core strategy**

A core strategy sets out the long term spatial vision for the local planning authority area, as well as the spatial objectives and the strategic policies to deliver that vision. The core strategy has the status of a development plan document. A Joint Core Strategy is being prepared by City of Lincoln council, North Kesteven District Council and West Lindsey District Council for Central Lincolnshire.

### **Development plan**

A development plan consists of the relevant regional spatial strategy (or the spatial development strategy in London) and the development plan documents contained within its local development framework.

### **Development plan documents (DPDs)**

Development plan documents consist of spatial planning documents that are subject to independent examination together with the relevant regional spatial strategy. These form the development plan for a council area for the purposes of the planning and compulsory purchase Act 2004. They can include a core strategy, site specific allocations of land, area action plans (where needed) and other documents deemed necessary by the council to deliver the spatial strategy in a justified and effective manner.



### **Evidence base**

An evidence base is the evidence that any development plan document, especially a core strategy, is based on. It is made up of the views of stakeholders and background facts about the area.

### **Ecosystem services**

Natural ecosystems provide a range of benefits in terms of resources or processes, known collectively as 'Ecosystem Services'. Examples of ecosystem services include provisioning - such as food and energy crops; Regulating – such as flood control, water purification, air quality maintenance, countering the urban 'heat island' effect, and pollination; cultural – non-material benefits that people obtain from the natural environment; and supporting – services necessary for the production of all other ecosystem services, such as nutrient recycling and soil formation.

### **Functional floodplain**

Comprises land where water has to flow or be stored in times of flood. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. However land which would flood with an annual probability of 1 in 20 (5%) or greater in any year, or is designed to flood in an extreme (0.1%) flood, should provide a starting point for consideration and discussions to identify the functional floodplain.

### **Geodiversity**

Geological diversity of the varied range of rocks, minerals and topographic characteristics/ landform, together with the processes instrumental in forming these features over geological time. The various components of our geological heritage can give insights into past climates, earlier environments and the development of life on earth

### **Green infrastructure**

Green Infrastructure is the physical environment within and between cities, towns and villages, specifically the network of open space, waterways, woodlands, green corridors and open countryside.

### **Greenspace**

For the purpose of this Study, greenspace consists of: **allotments, community gardens and urban farms; amenity greenspaces** (including informal recreation spaces, communal greenspaces within housing areas, children's play areas, outdoor sport facilities, village greens, urban commons, green roofs and other incidental space); **cemeteries, churchyards and disused burial grounds; green (and blue) corridors** (including rivers and canals and their banks, main drains, rail corridors, hedgerows, ditches, cycling routes, pedestrian paths and rights of way), **natural and semi-natural greenspaces** (including woodland and scrub, grassland, wetlands, open water, bare rock habitats, existing sites of national and local biodiversity importance and interest) and **parks and gardens** (including urban parks and gardens and country parks).

### **Greenspace strategies**

These evaluate publicly accessible open space provision at the local authority scale, noting issues in relation to condition, quality and access, often to inform a strategy and action plan that sets out future management and regeneration policies

### **Historic landscape characterisation (HLC)**

Moving beyond individual buildings, ornamental landscapes or archaeological sites, English Heritage's Historic Landscape Characterisation programme (run in partnership with county councils) establishes an over-arching view of the whole historic landscape. It provides a base map for a better appreciation of separate places, but also offers an overall understanding of the whole.

### **Higher level stewardship (HLS)**

HLS aims to deliver significant environmental benefits for wildlife, landscape, the historic environment and resource protection, in priority areas. It involves more complex environmental management requiring support and advice from Natural England's local advisers, to develop a comprehensive agreement that achieves a wide range of environmental benefits over a longer period of time. HLS agreements last for ten years. To apply for HLS, an individual must also apply for, or already be in, Entry

Level stewardship (ELS), Organic Entry Level Stewardship (OELS) or Uplands ELS (in all but a few specific situations).

### **Indices of multiple deprivation (IMD)**

These combine a number of indicators, chosen to cover a range of economic, social and housing issues, into a single deprivation score for each small area in England.

### **Landscape character**

The distinct, recognisable and consistent pattern of elements that occurs consistently in a particular landscape and how these are perceived – it reflects particular combinations of geology, landform, soils, vegetation, land use and human settlement

### **Landscape character areas**

Single unique areas that are the discrete geographical area of a particular landscape type

### **Landscape character types**

Distinct types of landscape that are relatively homogenous in character. They are generic in nature in that they may occur in different areas in different parts of the country, but share broadly similar combinations of geology, topography, drainage patterns, vegetation, historic land use and settlement pattern

### **Landscape character assessment (LCA)**

A process for classifying the landscape into areas of like or common character, based on physical and human influences. The assessment describes the physical, cultural and perceptual character of the landscape before separately evaluating that landscape, often in terms of important or sensitive features. LCAs often identify strategic objectives in respect of landscape planning, design and management, which can be equally applicable to GI

### **Listed buildings**

Buildings of special architectural or historic interest included on a list compiled by the Secretary of State for the guidance of local planning authorities in the exercise of their planning functions under the Planning (Listed Buildings and Conservation Areas) Act 1990 and the Town and Country Planning Act 1990.

### **Local development document**

Local development document is the collective term in the planning and compulsory purchase act for the development plan documents, the supplementary planning documents, and the statement of community involvement.

### **Local development framework (LDF)**

The local development framework is the name for the portfolio of local development documents consisting of development plan documents, supplementary planning documents, a statement of community involvement, the local development scheme and annual monitoring reports. Together these documents provide the framework for delivering the spatial strategy for a council area and may also include local development orders and simplified planning zones

### **Local distinctiveness**

Local distinctiveness is the physical, environmental, economic or social factors that characterise an area (and most likely a combination of all four), as well as how an area interacts with others.

### **Local Nature Reserves (LNR)**

(LNRs are accessible sites with wildlife or geological features that are of special interest locally. LNRs offer people special opportunities to study or learn about nature or simply to enjoy it.

### **Local strategic partnership (LSP)**

A local strategic partnership is a partnership of stakeholders who develop ways of involving local people in shaping the future of their neighbourhood in how services are provided. They are often single, multi-agency bodies which aim to bring together locally the public, private, community and voluntary sectors

**Multifunctionality**

The ability to provide multiple or cross-cutting functions, by integrating different activities and land usage, on individual sites and across a whole green infrastructure network

**National Nature Reserve (NNR)**

NNRs are established to protect the most important areas of wildlife habitat and geological formations in Britain, and as places for scientific research.

**Registered Parks and Gardens**

Registered Parks and Gardens are sites placed on the national 'Register of Parks and Gardens of Special Historic Interest' compiled and maintained by English Heritage. The Register was established to identify and increase awareness of the existence of such sites and to help ensure that the features and qualities that make these parks and landscapes of national importance are protected and conserved. Local Planning Authorities are encouraged to create local registers.

**Scheduled Monument**

A Scheduled Monument is legally defined in the Ancient Monuments and Archaeological Areas Act 1979 (Section 61(7)) as: '(a) any building, structure or work, whether above or below the surface of the land, and any cave or excavation; (b) any site comprising the remains of any such building, structure or work or of any cave or excavation; and (c) any site comprising, or comprising the remains of, any vehicle, vessel, aircraft or other movable structure or part thereof which neither constitutes nor forms part of any work which is a monument in paragraph (a) above'. More generally in archaeology, a monument is taken to be a definable building, structure or work that has archaeological integrity because it represents the contemporary embodiment of the physical context, setting, or result of one or more activities that took place in the past

**Section 106 Agreements**

Section 106 of the Town and Country Planning Act 1990 allows a local planning authority to enter into a legally-binding agreement or planning obligation with a land developer.

**Sustainable Drainage Systems (SuDS)**

Formerly called Sustainable Urban Drainage Systems - an approach to managing rainfall and run off in developments, with a view to replicating natural drainage. SuDS also aim to control pollution, recharge ground water, control flooding, and often provide landscape and environmental enhancement

**Sites of Special Scientific Interest (SSSIs)**

Sites designated under the Wildlife and Conservation Act 1981 (as amended) for their outstanding interest in respect of flora, fauna, geology and or limnology

**Supplementary plan documents (SPD)**

Supplementary plan documents provide supplementary information about the policies in development plan documents. They do not form part of the development plan and are not subject to independent examination.

**Sustainable community strategy (SCS)**

A sustainable community strategy sets out the strategic visions for a place and provides a vehicle for considering how to address difficult issues such as the economic future of an area, social exclusion and climate change. It is a vision document which needs to be aligned with the core strategy, as with the vision document for the local development framework



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