

August 2009

# North Hertfordshire District Green Infrastructure Plan

Final Report for  
North Hertfordshire District Council  
by  
Land Use Consultants





**NORTH HERTFORDSHIRE  
DISTRICT  
GREEN INFRASTRUCTURE PLAN**

**FINAL REPORT**

**Prepared for North Hertfordshire  
District Council  
by  
Land Use Consultants**

**August 2009**



43 Chalton Street  
London NW1 1JD  
Tel: 020 7383 5784  
Fax: 020 7383 4798  
[luc@london.landuse.co.uk](mailto:luc@london.landuse.co.uk)



# CONTENTS

<b>1. Introduction.....</b>	<b>1</b>
A definition of green infrastructure.....	1
<b>2. GI Audit and Environmental Characterisation .....</b>	<b>7</b>
Approach .....	7
Open Space.....	7
Access Links.....	21
Landscape Character .....	31
Cultural Heritage .....	41
Ecology and Biodiversity .....	47
Functional Ecosystems and Hydrology .....	55
Socio-Economic Characterisation.....	63
<b>3. GI Deficiency Analysis .....</b>	<b>75</b>
Scope of the analysis .....	75
<b>4. A Green Infrastructure Hierarchy.....</b>	<b>91</b>
The green infrastructure vision for North Hertfordshire.....	91
Key GI Themes .....	92
<b>5. Green Infrastructure Action Plan.....</b>	<b>101</b>
Action Plan .....	101
<b>6. Green Infrastructure Principles.....</b>	<b>133</b>
Green infrastructure principles in relation to the SNAP area .....	143
Hitchin.....	153
Baldock.....	163
Letchworth.....	169
Royston.....	175
Taking green infrastructure forward in development management.....	185

## FIGURES

- Figure 1.1: Study Area
- Figure 2.1: Green Spaces
- Figure 2.2: Access Links
- Figure 2.3: Landscape Character
- Figure 2.4: Cultural Heritage
- Figure 2.5: Biodiversity (Nature Conservation Designations)
- Figure 2.6: Biodiversity (BAP Habitats)
- Figure 2.7: Functional Ecosystems
- Figure 2.8: Indices of Multiple Deprivation
- Figure 2.9: Health Deprivation
- Figure 2.10: Income Deprivation
- Figure 3.1 - 3.4: Accessible Natural Green Space Catchment
- Figure 3.5: Accessible Green Space per 1000 population
- Figure 4.1: Strategic Green Infrastructure Network
- Figure 4.2: Proposed SNAP Area Green Infrastructure Network
- Figure 6.1: Hitchin Proposed Green Infrastructure Network
- Figure 6.2: Letchworth Garden City and Baldock Proposed Green Infrastructure Network
- Figure 6.3: Royston Proposed Green Infrastructure Network
- Figure 6.4: Green Infrastructure and development management

## APPENDICES

- 1: Green Infrastructure Planning and Policy Context
- 2: Study Methodology
- 3: GI Initiatives Table
- 4. North Hertfordshire Open Space Sites
- 5. Stevenage Open Space Quantity Data
- 6. Summary of stakeholder consultation responses (October 2008)
- 7. Initial GI proposals presented at the stakeholder consultation workshop, October 2008
- 8. Glossary of terms

## **Acknowledgements:**

Land Use Consultants – the project team comprised of Kate Ahern, Andrew Tempany, Emma Deen, Jonathan Pearson, Katy Lock, Richard Gowing, John Jeffcock (authors) and Graham Savage (GIS). Additional illustrations were prepared by Andrew Tempany, Alex Massey and John Jeffcock. The project was steered by officers from North Hertfordshire District and Stevenage Borough Councils – John Ironside, Andy Beavan, Louise Symes and Helen Leitch (NHDC), and Nigel Smith (SBC). In addition, consultation was undertaken with a range of stakeholders, whose contribution is gratefully acknowledged. However the views in the report are those of Land Use Consultants.

Image credits for page 49:

Left: Blaine Hansel, right: [www.emtomart.be](http://www.emtomart.be)



# I. INTRODUCTION

---

- I.1. Land Use Consultants was appointed by North Hertfordshire District Council in September 2008 to prepare a Green Infrastructure Plan for the District, with particular reference to the Stevenage and North Hertfordshire Action Plan Area (SNAP), in light of the significant future growth this area is expected to receive. The Green Infrastructure (GI) Plan will enhance existing green infrastructure and connections and provide a holistic consideration of green infrastructure deficiency, and likely future need in light of the growth of Stevenage, to inform priorities for new green infrastructure. This Green Infrastructure Plan establishes the policy context for green infrastructure and the baseline in terms of environmental and socio economic character. It also provides a GI deficiency analysis in addition to recommendations and design principles for the proposed GI network.
- I.2. This Green Infrastructure Plan has been developed through stakeholder consultation and is supported by an Action Plan to prioritise green infrastructure projects for North Hertfordshire District and the SNAP area. **Figure I.1** shows the location of the study area.

## A DEFINITION OF GREEN INFRASTRUCTURE

- I.3. For the purposes of this project green infrastructure is defined as:

*Green Infrastructure is the physical environment within and between our towns and villages. It is a network of multi-functional open spaces, including protected sites, nature reserves, formal parks, gardens, woodlands, green corridors, waterways, street trees and open countryside. It comprises all environmental resources, and thus a green infrastructure approach also contributes towards sustainable resource management.*

- I.4. It is important to note that green infrastructure considers both public and private assets. Green infrastructure can be considered as individual elements within sites, in a spatial dimension, in the context of links or corridors and also at a more conceptual level e.g. sustainable living. The multi functional character of Green Infrastructure (GI) means that it can also consider cultural as well as landscape and ecological assets/habitats. As well as sites and spaces both public and private, it takes account of elements such as trees and their contribution to shading and cooling, and as part of wildlife corridors. It also considers concepts such as sustainable water and resource management and use of river corridors and floodplains for amenity green space, and to maximise opportunities for biodiversity.
- I.5. Green infrastructure can provide a range of environmental, social and economic functions, including positive health benefits. The Town and Country Planning Association's 'Biodiversity by Design' Guide<sup>1</sup> outlines the purpose of green infrastructure as follows:

*Green infrastructure should provide for multi-functional uses i.e. wildlife, recreational and cultural experience, as well as delivering ecological services, such as flood*

---

<sup>1</sup> Town and Country Planning Association (2004) **Biodiversity by Design: A guide for Sustainable Communities**

*protection and microclimate control. It should also operate at all spatial scales from urban centres through to open countryside.*

- 1.6. There are several policy drivers for green infrastructure, including the Sustainable Communities Plan which includes the following commitment:

*We will promote more and better publicly accessible green space in and around our communities, for example through the creation of new country parks and networks of green spaces within towns and cities.*

### **How Green Infrastructure relates to North Hertfordshire and the Stevenage and North Hertfordshire Action Plan (SNAP) area**

- 1.7. This section briefly introduces the landscape and environmental baseline of the study and projected future growth within the district.

#### ***Setting the scene – landscape and environment***

- 1.8. The district has a significant number of existing green infrastructure assets. There are several minor river valleys such as the Oughton, Purwell, Mimram, Hiz, Pix and Ivel, in addition to an extensive network of waymarked routes and trails. The district includes ancient woodland (some of which is designated SSSI), heathlands/commons and areas of chalk grassland) and registered parks and gardens. Deer parks form a pattern in the local landscape, notably in plateau areas to the south. A small part of the Chilterns AONB extends into the district near Hitchin.

#### ***Growth***

- 1.9. Stevenage is expected to receive significant growth to 2021 (some 6400 homes on brownfield land and within the Borough Boundary, with a further 9600 homes in urban extensions within the SNAP area, within North Hertfordshire District, at least 5000 of which are to be located to the west of the A1(M) corridor. The SNAP area can potentially accommodate a further 7000 dwellings to 2031). Growth is anticipated around the towns of Letchworth, Baldock, Royston and Hitchin and at a significant scale around Luton in the same period. The Green Infrastructure Plan will therefore be vital not only in understanding pressures on existing GI and identifying opportunities for enhancement, but also to set a framework for adequate future green space provision and linkages.
- 1.10. The GI Plan sets out a landscape led, holistic and sustainable framework for the future growth of Stevenage, and for the four North Hertfordshire towns, planning for adequate and appropriate new green spaces and links, to create a 'greenprint' for new development which responds to the sense of place and connects communities better with their 'natural environment'.

#### **Purpose of this study**

- 1.11. The Green Infrastructure Plan will form part of the evidence base for the Local Development Framework and also for future revisions to the planning obligations SPD. It will set out guiding principles for the design and provision of new green infrastructure in relation to new development, and will be used to inform a Design SPD for the district.

### ***A note on scale and approach***

- I.12. Site allocations are currently at the initial options stage. At present a broad area of search has been defined for the SNAP Area, along with indicative spatial options for the four towns in North Hertfordshire. This study is therefore of a strategic nature. It considers green infrastructure in terms of two tiers or spatial scales: i) the district as a whole, identifying strategic green and blue links and taking account of adjoining Green Infrastructure Strategies, and ii) more detailed spatial green infrastructure options for the SNAP area. These encompass GI design principles, which have also been developed for the four towns. Green infrastructure proposals have been underpinned by a series of thematic concepts relating to sense of place, biodiversity, community and sustainability as a basis for green infrastructure principles which can be applied to future growth sites.

### **Report Structure**

- I.13. This Green Infrastructure Plan is set out as follows:
- Introduction (this section);
  - GI Audit and Environmental Characterisation;
  - GI Deficiency Analysis;
  - A GI Hierarchy for North Hertfordshire and the SNAP area, including the Green Infrastructure Vision;
  - Green infrastructure Action Plan and Implementation Strategy;
  - Green infrastructure principles including for the SNAP Area and the four North Hertfordshire towns, and guidance on embedding green infrastructure in development management.
- I.14. The Green Infrastructure planning and policy context and methodology developed for this study are described at Appendices 1 and 2 respectively.

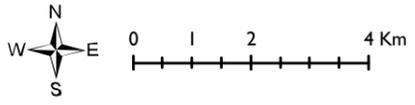
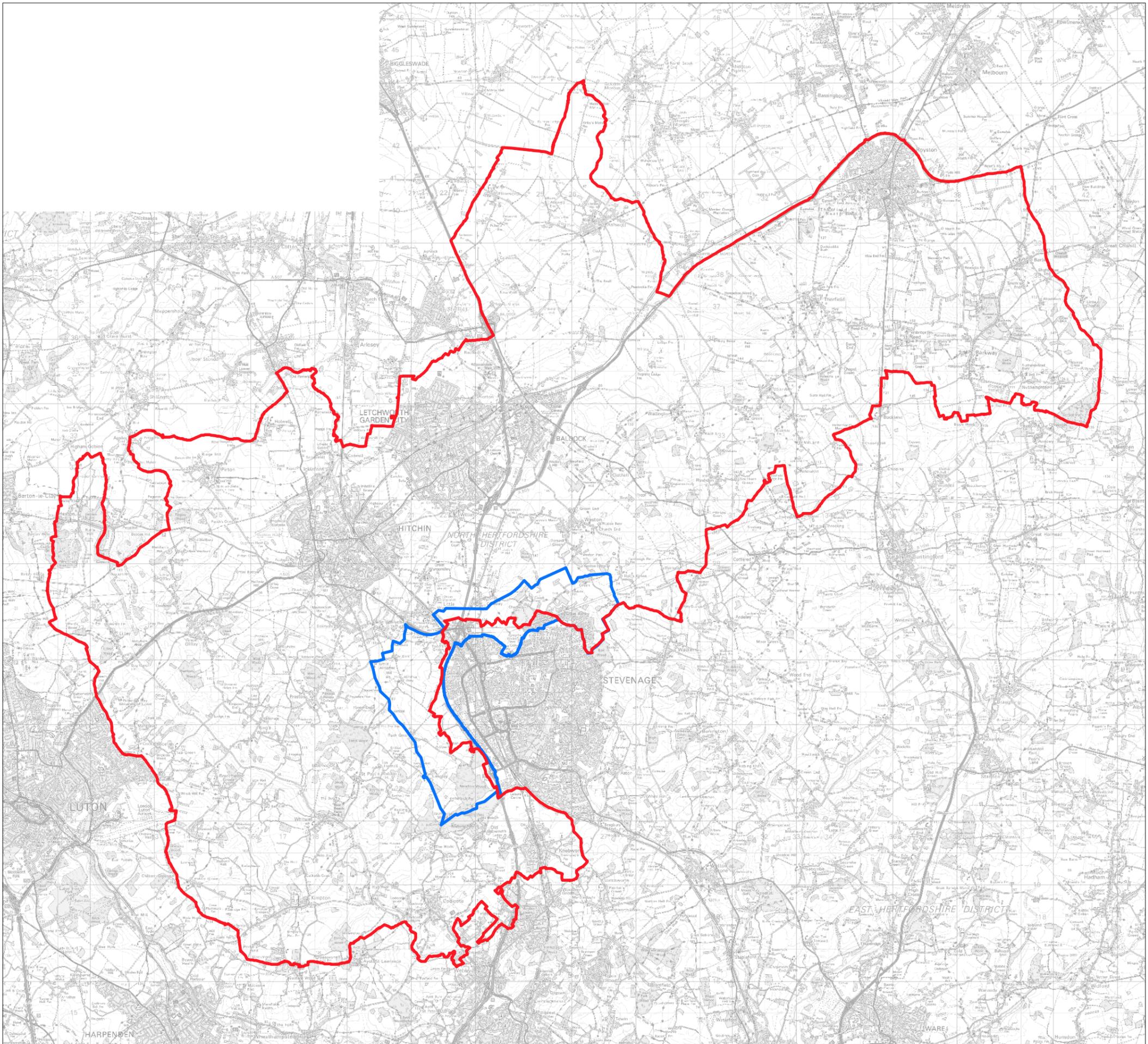


# North Hertfordshire Green Infrastructure Plan

## Figure I.1: Study Area

### Key

-  North Hertfordshire District boundary
-  Proposed SNAP boundary



Source: North Hertfordshire District Council

Date: 04/08/2009  
Revision: A





## **2. GI AUDIT AND ENVIRONMENTAL CHARACTERISATION**

---

- 2.1. This section sets out the map based audit and thematic ‘environmental characterisation’ which has been used to establish the green infrastructure baseline within the district. This will form part of the framework or the ‘hooks’ on which to hang the proposed green infrastructure network. Some key issues/sensitivities and broad brush opportunities for green infrastructure creation have been identified, to inform green infrastructure planning within the district.

### **APPROACH**

#### **Mapping**

- 2.2. Account has been taken of Natural England’s Accessible Natural Green Space in Towns (ANGSt) green space hierarchy, with mapping of green infrastructure assets and spaces down to 2ha in area. Within urban areas, sites have been mapped down to 1ha in area.

#### **Characterisation and Opportunity Analysis**

- 2.3. The characterisation considers two ‘tiers’ – i) a strategic overview of the wider study area (North Hertfordshire District) and ii) more detailed consideration of the local dimension – the Stevenage and North Hertfordshire Action Plan (SNAP) area. In this baseline assessment, no distinction has been made between the wider district and the four towns (with the exception of the section on landscape character), due to the much smaller levels of growth these will experience in relation to the SNAP area. For each environmental theme a short description establishes the baseline situation for the two tiers, accompanied by a brief bullet point list of GI planning and design opportunities to inform the proposals for the GI network. The environmental characterisation covers the following themes:

- Open Space and Links;
- Landscape Character;
- Cultural Heritage;
- Ecology and Biodiversity;
- Functional Ecosystems and Hydrology;
- Socio Economic Character.

### **OPEN SPACE**

- 2.4. This section describes the quality and quantity of existing open space within the district, alongside potential issues and opportunities related to this subject. Our review of open space and access links is undertaken at two levels; 1. a strategic level, addressing the towns, villages and rural areas within North Hertfordshire and 2. for the SNAP area.

- 2.5. **The following data was used to map open space provision: Existing open space network by typology (within the PPG17 Green space Audit) in addition to common land and Country Parks.**
- 2.6. Existing open space provision is mapped at **Figure 2.1**.

### **Strategic open space**

- 2.7. A Green Space audit has been undertaken by North Hertfordshire District Council, with supporting standards recently developed by North Hertfordshire District and LUC<sup>2</sup>. The study provides an up to date summary of the quality, quantity and accessibility of open space across North Herts, and sets out standards for future provision.

### **Quantity**

- 2.8. North Hertfordshire has approximately **1655 hectares** of public open space. This includes open space within a number of typologies, similar to the nine typologies recommended by *PPG17: Planning for open space, sport and recreation*. The approximate provision in each typology is summarised below, with quantity data for Stevenage Borough in **Appendix 5**.

**Table 2.1: Total provision of open space in North Hertfordshire by typology**

<b>Open space type</b>	<b>Amount (ha)</b>
<b>A: Town parks and gardens</b>	8.30
<b>B: Recreation grounds</b>	54.58
<b>C: Amenity green space</b>	90.21
<b>D: Natural and semi natural</b>	828.93 (of which 324.19ha is accessible)
<b>E: Green corridors</b>	56.97
<b>F: Allotments</b>	32.66
<b>G: Cemeteries and churchyards</b>	36.55
<b>H: Play and youth facilities</b>	25.34 (of which 25.28ha is accessible)
<b>I: Outdoor sports facilities</b>	332.28 (of which 74.28ha is accessible)
<b>J: Schools</b>	189.04 (of which 74.90ha is accessible)
<b>TOTAL</b>	<b>1654.86ha</b>

<sup>2</sup> NHDC/LUC (2009) **Green Space Standards Report**

- 2.9. It should also be noted for the purposes of the PPG17 audit that a number of open space sites, which encompassed various functions, were identified as ‘multifunctional green space’.
- 2.10. To enable identification of the areas most deficient in open space, both North Hertfordshire and Stevenage have developed aspirational standards for the provision of open space. These have informed the green infrastructure principles developed for the SNAP area and the four towns, through this study. Standards have been for a range of different open space types, as set out below. For the purpose of this Green Infrastructure Plan, the priority open space types are parks and gardens, amenity green space and accessible natural green space. The quantity and accessibility standards for both authorities are set out in **Tables 2.2** and **2.3** below. Key areas of North Hertfordshire District which are deficient in each open space type are set out in **Table 2.3**.

**Table 2.2: Quantity and accessibility standards for Stevenage Borough**

<b>Open space typology</b>	<b>Quantity standard</b>	<b>Accessibility standard</b>
<b>Parks and gardens</b>	<b>7.3sq m per person</b>	<b>800m walking distance</b>
<b>Amenity green space</b>	<b>11sq m per person</b>	<b>400m walking distance</b>
<b>Accessible natural green space</b>	<b>17.8sq m per person</b>	<b>400m walking distance</b>
<b>Equipped play areas</b>	<b>0.8 play areas per 1000 population</b>	<b>400m walking distance</b>
<b>Youth Activity Areas</b>	<b>0.8 youth areas per 1000 population</b>	<b>400m walking distance</b>
<b>Allotments</b>	<b>0.9sq m per person</b>	<b>1.2km walking distance</b>
<b>Sports pitches</b>	-	-
<b>Sports facilities and Multi Use Games Areas</b>	<b>22sq m per person</b>	<b>- 800m walking distance</b>

Source: Stevenage Borough Council (2006): Open Space, Recreation and Sport Study. Note that this does not relate to the consultation draft Open Space Strategy.

**Table 2.3: North Hertfordshire open space access and quantity standards and areas of deficiency**

Type of open space	Quantity standard (ha/1000) - towns	Quantity standard (ha/1000) – rural areas	Key areas of deficiency	Accessibility standard	Key areas of deficiency
A: Town parks and gardens	0.77	2.49	Royston Hitchin	480m	Hitchin, Letchworth North, Royston North
B: Recreation grounds			Baldock Letchworth Royston	480m	Hitchin West, Letchworth, Baldock, Royston North
C: Amenity green space			Hitchin Royston	480m	Small pockets within the four key towns
D: Natural and semi natural	1.47	6.37	Letchworth Royston	Under 2ha: 720m; 2ha-20ha: 960m; Over 20ha: 1440m	Small part of Letchworth South
E: Green corridors	No standard set	No standard set	Baldock Hitchin	480m	Royston West, part of eastern edge of Baldock, Letchworth North, large part of central Hitchin
F: Allotments	0.23	0.36	Royston	720m	Royston South and West, Letchworth North and South, Hitchin South and East
G: Cemeteries and churchyards	No standard set	No standard set	Baldock Royston	720m	Royston North, West and South, Baldock South, much of Letchworth and central,

Type of open space	Quantity standard (ha/1000) - towns	Quantity standard (ha/1000) – rural areas	Key areas of deficiency	Accessibility standard	Key areas of deficiency
					eastern and western parts of Hitchin
H: Play and youth facilities (equipped)	0.2		Hitchin Royston	600m (Neighbourhood Play Area or NEAP); 240m (Local and equipped Play areas or LEAP and LAP)	Royston West, Letchworth West, small pockets of Baldock and Hitchin
I: Outdoor sports facilities (grass pitches)	1.42	1.85	Baldock Hitchin Royston	720m	Royston North, parts of Letchworth West, North and East, Baldock South
J: School/institutional sports facilities			Baldock Hitchin Letchworth	720m	Letchworth North, East and South, Hitchin South and West

NB: A number of the typologies have been aggregated within the North Hertfordshire Green Space Standards Report, as shown in **Table 2.3** above, and this is also described in the deficiency analysis in Chapter 3.

## Quality

- 2.11. The Green Flag Award is the nationally recognised award for high quality open space sites, awarded by the Civic Trust. At present, North Hertfordshire does not have any Green Flag open spaces, although several are being considered for future applications, notably Norton Common and Broadway Gardens in Letchworth. In addition to redressing current spatial deficiencies in open space, improvement of quality of existing open space, through access, design and management will also be important.

## Distribution and key locations

- 2.12. A number of large scale open spaces have been identified within the district. These include Knebworth Park and Country Park, Norton Common in Letchworth and

Therfield Heath, near Royston, in addition to Fairlands Valley Park, within the urban area of Stevenage.

**Table 2.4: Summary of important open spaces in North Hertfordshire**

Feature	Summary	Access
Knebworth Country Park	Knebworth Country Park comprises more than 100 hectares of open grassland which is accessible to the public but paid entry is required. The park is a Grade 2 listed historic park laid out in the 16 <sup>th</sup> century, and features include a herd of deer which roam the site.	Paid Entry, restricted entry times
Letchworth		
Howard Park	Early 20 <sup>th</sup> century park with lawns, flower beds, a children's paddling pool, sand pit and play area. It is a Grade 2 listed historic park. It is currently the subject of a proposed Parks for People Heritage Lottery Fund bid.	Open access
Broadway Gardens	Broadway Gardens is located in the heart of Letchworth and following a £1.25 million makeover in 2003, now includes a fountain, paved area for public events and substantial replanting of trees, shrubs and hedges. Recently the park and gardens have been used for musical festival and summer fun days.	Open access
Norton Common	Norton Common Local Nature Reserve is a major open space facility in the District, providing 25 hectares of grass and woodland, tennis courts, bowling greens, a skateboard area and a heated outdoor pool. A chestnut avenue is a distinctive feature of the site.	Open access
Hitchin		
Purwell Meadows	A large expanse of water meadow, formerly part of the area known as Purwell Field, and partly a Local Nature Reserve.	Open access
Oughtonhead Common	Oughtonhead Common is a Local Nature Reserve comprising grazing common grasslands and the River Oughton, with reed and sedge beds, hedgerows and bushes, and woodland. Oughton Head woodland is a 6 hectare site accessible by permit only and managed by the local Wildlife Trust.	Open access including for mobility impaired. Woodland reserve accessible by permit only
Bancroft	Created in the 1920s, the Gardens and recreation ground include a Bowling Green,	Open access

<b>Feature</b>	<b>Summary</b>	<b>Access</b>
Gardens	bandstand, and tennis courts.	
Butts Close	This 27.5 hectare acre park was once a medieval archery training ground and now includes a swimming pool.	Open access
Baldock		
Wall's Field	This registered SAM site forms a green wedge separating the eastern and western urban areas of the town. From 100BC onwards the site formed the focus for an expanding Romanic settlement.	Open access
Royston		
Priory Memorial Gardens	Priory Memorial Gardens is the principal town park in Royston. Built on the site of a former priory, the gardens were dedicated in 1953 as a Second World War memorial. The park is one of the District's regular winners in the Britain in Bloom competition.	Open access
Other significant semi-natural open spaces		
Therfield Heath	Therfield Heath is a 169 hectare Local Nature Reserve and is noted as one of the most extensive remaining chalk grasslands in eastern England. The site is designated as a Site of Special Scientific Interest (SSSI), attracts significant biodiversity and is home to the largest pasqueflower colony in Britain. The site is accessible at all times, but is sensitive to increased recreational use.	Accessible at all times
Weston Hills	This wildlife site is characterised by chalk grassland and beech woodland and is home to a range of flora and fauna.	Open access
Ivel Springs	This 15 hectare Local Nature Reserve is the site of the source of the Ivel River and was once a rubbish dump for Baldock. It comprises wetland, woodland and grassland habitats. There are also community allotments on the site, including 5 special allotments for disabled people.	Open access

Feature	Summary	Access
Ickleford Common	An area of approximately 55 acres, declared as a Countryside Heritage Site by Hertfordshire County Council for its outstanding ecological and landscape value.	Open access
Ravensburgh Castle, Hexton	90 hectares	Access unknown
Hitch Wood, Langley	103 hectares	Access unknown
Graffridge Wood	42 hectares	Access unknown
Scales Park	77 hectares	Access unknown
Other significant open space		
Knebworth Woods SSSI	This ancient woodland SSSI supports a range of tree species such as oak and hornbeam coppice with wetter areas and wide rides supporting heathland communities. It is an area of high biodiversity and features hornbeam pollards over 250 years old.	Privately owned, no public access
Fairlands Valley Park	Outside District but will form important link into Stevenage. Facilities include sailing, climbing, and angling.	Freely accessible
Great Ashby Country Park	The park, which is currently under construction, will comprise approximately 9.7ha of public open space incorporating formal playing pitches and informal grassland with footpaths and bridleways.	Open access

- 2.13. A list of the open space sites over 2ha in size (1ha in urban areas) within North Hertfordshire District is provided in **Appendix 4**. A strategic approach has been taken to open space within this part of the district, concentrating the detailed analysis on the SNAP area.

### Key deficiencies

- 2.14. The North Hertfordshire Green Space Standards Report identifies current quantitative deficiencies, in terms of recreational and amenity green space (aggregated from typologies A-C in **Table 2.3** above) at Baldock, Royston and Letchworth, in addition to rural areas to the west of the A1(M). Deficiencies are also identified in terms of natural and semi natural green space at Royston, Baldock

and rural areas to the west of the A1(M). These deficiencies should be addressed as a priority through green infrastructure. In addition, provision should be made for local food growing areas and allotments, as well as suitable play and sport facilities. More detail on green infrastructure deficiency is provided at section 3.

### **SNAP Area**

- 2.15. The SNAP area is largely within North Herts, although its boundary also encompasses some urban fringe areas around Stevenage. The SNAP Key Issues Report<sup>3</sup> highlights the importance of well designed and attractive open space, with a 'carefully thought out' relationship with the surrounding built environment. The report highlights the following aspiration:

*“Creating places, streets and spaces which meet the needs of people, are visually attractive, safe, accessible, functional, inclusive, have their own distinctive identity and maintain and improve local character.”*

- 2.16. The recently compiled North Hertfordshire Green Space Audit identifies a number of existing open spaces within the SNAP area, mainly around Great Ashby. **Table 2.5** overleaf provides a summary of the existing open space within the SNAP boundary. These are primarily multi functional and semi natural green spaces, allotments and play areas, in addition to amenity green space within residential areas and sports pitches. Clearly the level of urban expansion projected in the SNAP area will require a significant level of new open space of a variety of scales and types, including neighbourhood parks.

---

<sup>3</sup> North Herts District Council and Stevenage Borough Council (2007) **Stevenage and North Herts Action Plan Key issues and Options Consultation** November 2007.

**Table 2.5: Details of North Hertfordshire open spaces within SNAP boundary**

Reference from Green Space Audit	Open space	Location	Typology	Quality	Value
North Hertfordshire					
17	Cleveland Way	Great Ashby	Play and youth	H	H
18	Quantock Close	Great Ashby	Play and youth	H	H
19	Foyle Close	Great Ashby	Play and youth	H	L
20	Mendip Way	Great Ashby	Play and youth	H	H
268	Knebworth Estate (part)	Knebworth	Natural and semi natural	-	-
342	Round Diamond Primary School	Great Ashby	Schools/institutional sports facilities	-	-
390	Parson's Green Wood	Great Ashby	Amenity green space	L	H
391	Lomond Way	Great Ashby	Amenity green space	H	H
501	Tilekiln Wood	Great Ashby	Natural and semi natural	L	H
502	Mendip Way	Great Ashby	Natural and semi natural	L	H
503	Hangbois Wood	Great Ashby	Natural and semi natural	L	L
511	Recreation ground	Great Ashby	Natural and semi natural	H	H
524	Titmore Green Meadow	Little Wymondley	Natural and semi natural	-	-

Reference from Green Space Audit	Open space	Location	Typology	Quality	Value
543	Burleighcroft Wood	Knebworth	Natural and semi natural	-	-
584	Meadow west of Norton Green	Knebworth	Natural and semi natural	-	-
602	Land under pylons and Mendip Way	Great Ashby	Green corridor	L	H
603	Fairfield Way	Great Ashby	Green corridor	H	H
721	Stevenage Road	Little Wymondley	Allotments	L	H
-	Registered common land at North Green	Knebworth	-	-	-
Stevenage					
230	Duckdale Plantation	Stevenage northeast	Natural and semi natural	Poor	-
231	Newcastle Close A/B/C	Stevenage northeast	Amenity green space	-	-
239	Weston Road Cemetery	Stevenage north (within Forster Country)	Churchyard	Very good	-
244	Great Ashby Way	Stevenage northeast	Amenity green space	-	-
245	Stevenage Town RFC/Lister Tennis Club	Stevenage northwest	Sports pitches	Good	-

## Summary of existing provision

### **Provision**

- 2.17. The total amount of publicly accessible open space within the SNAP area is approximately 69ha. Much of the existing open space is categorised as multi-functional, with other types of open space including allotments at Little Wymondley. Great Ashby appears to have good provision of open space, whilst there is little accessible open space in the SNAP area to the west of Stevenage.
- 2.18. It is important to consider the provision just outside the SNAP area, especially within the urban area of Stevenage. There are a number of local open spaces just outside the boundary of the SNAP area, including strategic open semi-natural open spaces such as Box Wood in East Hertfordshire. Several smaller open spaces are located to the north of Stevenage, close to Great Ashby, and to the north west, on the east of the A1(M) motorway. Without any additional access infrastructure to bridge the motorway, the open space to the north west of Stevenage would be inaccessible from the SNAP area, as the A1(M) acts as an access barrier.

### **Key GI Issues/Opportunities**

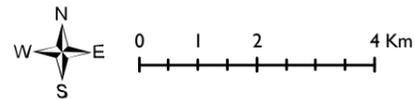
- 2.19. The following issues and potential opportunities related to open space and recreation in the District include the following:
  - Create a linked hierarchy of green spaces within the SNAP area (and taking account of existing green spaces) to cater for passive and active recreation, and access to nature, and to meet ANGSt standard requirements;
  - Bridge the A1(M) to enhance links from Stevenage to the SNAP area and beyond, exploring opportunities for multiple hierarchy routes for a variety of users/different forms of green transport;
  - Create attractive 'greenways' for pedestrians, cyclists and horse riders from the SNAP area to the wider countryside, including sites in neighbouring authorities such as Box Wood in East Hertfordshire;
  - Join up new and enhanced green infrastructure with existing assets, and where appropriate, increase public access to existing recreational assets such as Knebworth Country Park.

# North Hertfordshire Green Infrastructure Plan

Figure 2.1: Green Spaces

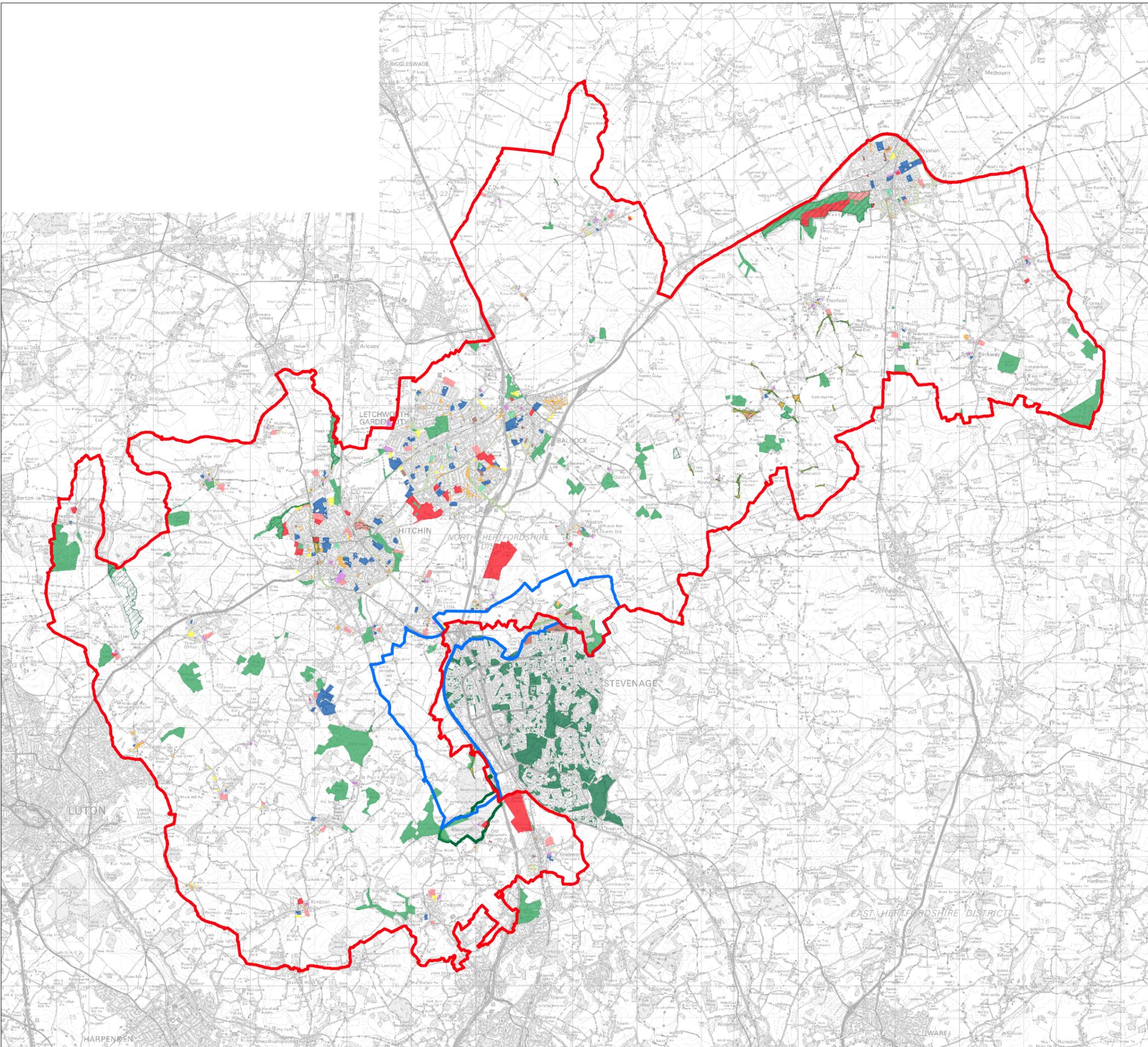
## Key

-  North Hertfordshire District boundary
-  Proposed SNAP boundary
- Green space typology (North Herts)**
-  A. Town parks and gardens
-  B. Recreation grounds
-  C. Amenity green space
-  D. Natural and semi-natural greenspace
-  E. Green corridors
-  F. Allotments
-  G. Cemeteries and Churchyards
-  H. Play & youth facilities
-  I. Outdoor sports facilities
-  J. Schools/institutional sports facilities
-  Stevenage green space sites
- Other open space**
-  Country park
-  Registered common land
-  Open country



Source: North Herts District Council  
Stevenage Borough Council, Natural England

Date: 04/08/2009  
Revision: A





## ACCESS LINKS

### Strategic

- 2.20. Access links and connections are critical to a successful GI Network. This section sets out existing provision in terms of waymarked routes and trails, and paths/rights of way, noting distribution, patterns and opportunities for further linkages.
- 2.21. In order to build up a picture of existing links, 1:25,000 and 1:50,000 scale OS map data were used, with reference to the notations concerning National Trails, Way marked routes and Sustrans Routes, in addition to PROWS. Access links are shown on **Figure 2.2**.

**Table 2.6: Strategic Access Links**

Feature	Summary	Access
Links		
<b>Waymarked routes and trails</b>		
Icknield Way National Trail	The Icknield Way runs from Ivinghoe Beacon in the Chilterns to Knettishall Heath in the Brecks (Norfolk), and can claim to be the oldest road in England, dating back more than 4,000 years.	Fully accessible, although condition is variable and near ploughed out in places. Variable signage. Some links to local rural railway stations e.g. at Ashwell.
The Chain Walk	138km walk across Hertfordshire from the northern edge of London to Ashwell, near the Cambridgeshire border and offers a range of round/radial walks between 6 – 14km in length.	Fully accessible – connects to Icknield Way to the east of Baldock.
The Hertfordshire Way	266km circular route, recently extended by 38km, and on public rights of way.	Fully accessible. Some sections have recently been upgraded/resurfaced with new bridges as part of the recent Baldock Bypass highway scheme. The route has a 'Friends Group' (Friends of the Hertfordshire Way, who organise walks along identified sections, subdivided into 16 zones on a route plan).

Feature	Summary	Access
The Chiltern Way	Extends into the western edge of the District from Luton, over the Chiltern Scarp Slope. It extends north – south across the Chilterns AONB and is some 275km in length. It is based on an earlier unofficial circular route from Hemel Hempstead (the Chiltern Hundred). The way was established by the Chiltern Society as a Millennium Project in 2000, and extended in 2003.	Fully accessible.
<b>Paths and Rights of Way</b>		
Bridleways	Bridleways are distributed widely across the District, with a higher density at Langley and Preston, linking these outlying hamlets with the southern edge of Hitchin. A network of bridleways extends from the western edge of Hitchin, towards the Icknield Way, although they do not connect with it directly.	Fully accessible – condition is variable, although signage is often clear and relatively recent (CMS initiative).
Public footpaths	Existing footpath provision is extensive across the District, although most extensively concentrated around areas where a smaller scale and more intact landscape pattern persists (e.g. associated with hedgerows and woodland blocks) e.g. around Wallington and Clothall, to the south east of Baldock, at Weston and Gravely. Paths often link to high level routes such as the Icknield Way and the Hertfordshire Way. To the west of Stevenage and the A1(M) an extensive path network connects hamlets such as St Paul's Walden and Langley with remnant blocks of ancient woodland.  A number of footpaths near Clothall	Fully accessible – condition is variable, although signage is often clear and relatively recent (CMS initiative).

Feature	Summary	Access
	<p>cross the line of the old Roman Road (Great North Road) although they do not follow the alignment of the historic route.</p> <p>Distribution of footpaths is apparently sparser in the large scale arable landscape to the north of Baldock, around Ashwell and Royston.</p> <p>A good network of footpaths fringes Hitchin and extends into the core of the town via the floodplain of the Purwell.</p>	
<b>Cycling</b>		
Sustrans Route 12	<p>The route is currently open and signed between Potters Bar (Hertfordshire) and Letchworth, and then between Huntingdon and Spalding. The ultimate aim is for the route to run from Enfield Lock, North London to Grimsby. Within the District, the route partially follows the alignment of the Letchworth Greenway, a radial route established for the town's centenary by the Letchworth Heritage Foundation.</p>	<p>Fully accessible and in good, well maintained condition, notably the area around Letchworth which forms part of the recent landscape improvements implemented as part of the Greenway.</p>

### **Key Issues and Opportunities**

- To enhance the experience of walking the Icknield Way through alternative management of field boundary margins and encouraging a more 'walkable' route (equal access considerations);
- A key opportunity is to create improved secondary level pedestrian connections to the Icknield Way and Chiltern Way, in addition to extending bridleway routes for horse riders to the Icknield Way e.g. from Hitchin;
- More could be made of the historic Roman Roads and droving roads as a heritage theme e.g. to use the alignment of the Great North Road as a PROW, or to reinstate part of the route for new footpaths/cycleways, and to connect to the site of the Roman settlement at Wall's Field in the centre of Baldock (opportunity for interpretation and education as part of new green space);
- There is a lack of long distance routes which provide access to remote and interesting areas within the district, many paths are ended abruptly by

administrative boundaries or major roads. In addition routes should connect directly with communities and places of interest to reduce the need to travel by car;

- The PROW network currently fails to make any specific provisions for people with disabilities including those with mobility problems. The district should develop routes which cater for the needs of people with reduced mobility or vision;
- The current PROW network is often disjointed in places, with paths changing status from bridleways to footpaths or being severed by development which reduces the ability for cyclists, horse riders and other users to complete circular routes. Routes should also begin and connect with suitable locations for example bridleways should connect with stables and livery yards;
- Opportunity to negotiate with landowners and property interests to establish new routes through legal orders or permissive agreements.
- Comparatively few of the rivers within the district have good PROW access along the riverbanks (with the exception of the Purwell flood meadows at Hitchin). This is a key opportunity to create new/enhanced blue links<sup>4</sup> and connections to other footpath routes.

### **SNAP Area**

- 2.22. This section considers SNAP North and SNAP west as two separate spatial entities. Both have generous PROW provision and area crossed at points by the Hertfordshire Way.

---

<sup>4</sup> Within the GI Plan, a distinction has been made between green and blue links. Whilst they are often the same in functional terms, blue links are identified separately as they may have additional design and management considerations, due to the fact that they are often located on floodplain land.

**Table 2.7: SNAP Area Access Links**

<b>Feature</b>	<b>Summary</b>	<b>Access</b>
<b>Links – SNAP North/North West</b>		
<b>Waymarked routes and trails</b>		
The Hertfordshire Way	266km circular route, recently extended by 38km, and on public rights of way. The route extends into the SNAP area to the north of the area of search being considered for a new Country Park (Forster Country) within the SNAP Issues and Options Document.	Fully accessible. Some sections have recently been upgraded/resurfaced with new bridges as part of the recent Baldock Bypass highway scheme. The route has a ‘Friends Group’ (Friends of the Hertfordshire Way, who organise walks along identified sections, subdivided into 16 zones on a route plan).
Stevenage Outer Orbital Path (STOOP)	A circular route around the rural – urban fringe of Stevenage, recently dedicated by the Ramblers Association, and largely on existing paths and rights of way.	Fully accessible. Adopted in September 2008.
<b>Paths and Rights of Way</b>		
Bridleways	A bridleway falls within the south eastern part of the SNAP area, connecting to recent residential development at Brooches Wood.	Fully accessible and well signposted. Incorporates historic field boundary structure.
Public Footpaths	A number of public footpaths cross the site, linking the northern edge of Stevenage with the outlying villages of Gravely and Weston, and crossing ‘Forster Country’. Several paths also link to the Hertfordshire Way at the boundary with Chesfield Park.	Fully accessible. Generally well signposted and well used.

<b>Feature</b>	<b>Summary</b>	<b>Access</b>
<b>Cycling</b>		
Sustrans Route 12	The route is currently open and signed between Potters Bar (Hertfordshire) and Letchworth, and then between Huntingdon and Spalding. The ultimate aim is for the route to run from Enfield Lock, North London to Grimsby. Within the District, the route partially follows the alignment of the Letchworth Greenway, a radial route established for the town's centenary by the Letchworth Heritage Foundation. Sustrans Route 12 crosses a small part of the westernmost extent of this part of the SNAP area.	Fully accessible and in good, well maintained condition, notably the area around Letchworth which forms part of the recent landscape improvements implemented as part of the Greenway.
<b>Feature</b>	<b>Summary</b>	<b>Access</b>
<b>Links – SNAP West</b>		
<b>Waymarked routes and trails</b>		
The Hertfordshire Way	266km circular route, recently extended by 38km, and on public rights of way. The route extends into the northern part of the SNAP area, connecting Hitch Wood within the AONB to the hamlet of Little Wymondley.	Fully accessible. The route has a 'Friends Group' (Friends of the Hertfordshire Way, who organise walks along identified sections, subdivided into 16 zones on a route plan).
<b>Paths and Rights of Way</b>		
Bridleways	The western part of the SNAP area is crossed by an extensive network of linear bridleways, in a broadly east-west direction across the site. A bridleway also runs broadly east-west across the ridge, connecting the hamlet of Langley with the historic Green Lane at Kitching Green Lane and then to	Fully accessible and well signposted. Incorporates historic field boundary structure.

<b>Feature</b>	<b>Summary</b>	<b>Access</b>
	Almshoebury.	
Public Footpaths	Public footpaths are most densely concentrated around the smaller scale field boundary structure near to Knebworth Woods SSSI, and to the north, around Titmore Green.	Fully accessible and generally well signposted.
<b>Cycling</b>		
Sustrans Route 12	The route is currently open and signed between Potters Bar (Hertfordshire) and Letchworth, and then between Huntingdon and Spalding. The ultimate aim is for the route to run from Enfield Lock, North London to Grimsby. Within the District, the route partially follows the alignment of the Letchworth Greenway, a radial route established for the town's centenary by the Letchworth Heritage Foundation. Sustrans Route 12 crosses a small part of the southern boundary of SNAP west.	Fully accessible and in good, well maintained condition. Follows the northern boundary of Knebworth Park and crosses the A1(M) via an underpass.

### **Key Issues and Opportunities**

- A key opportunity is to enhance and extend the footpath network in the central part of SNAP West, making use of the Langley tributary valley/flood corridor as a new blue link, within an area of semi natural green space. Such links could also connect to the Chiltern Way and to the edge of the Chiltern Escarpment/AONB, enhancing pedestrian/riding connections to this important GI resource;
- Currently few public footpaths connect to the existing urban area of Stevenage, with the A1(M) forming a key barrier. Strategic bridges over the motorway and linking to existing residential estates and associated green spaces are a key opportunity;
- Whilst the Sustrans Route is well used, it crosses the A1(M) via an unattractive underpass. More could be made of this intersection, in view of the fact that this represents one of the 'gateways' into Stevenage. A potential opportunity is a green bridge in this location to connect to Knebworth Woods and Park;
- With the exception of the Sustrans Route opportunities for car free access to Knebworth Park are difficult and there is the opportunity to create further pedestrian links to this site, including across the A1(M).



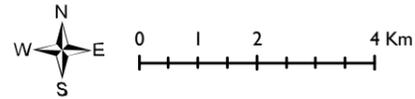
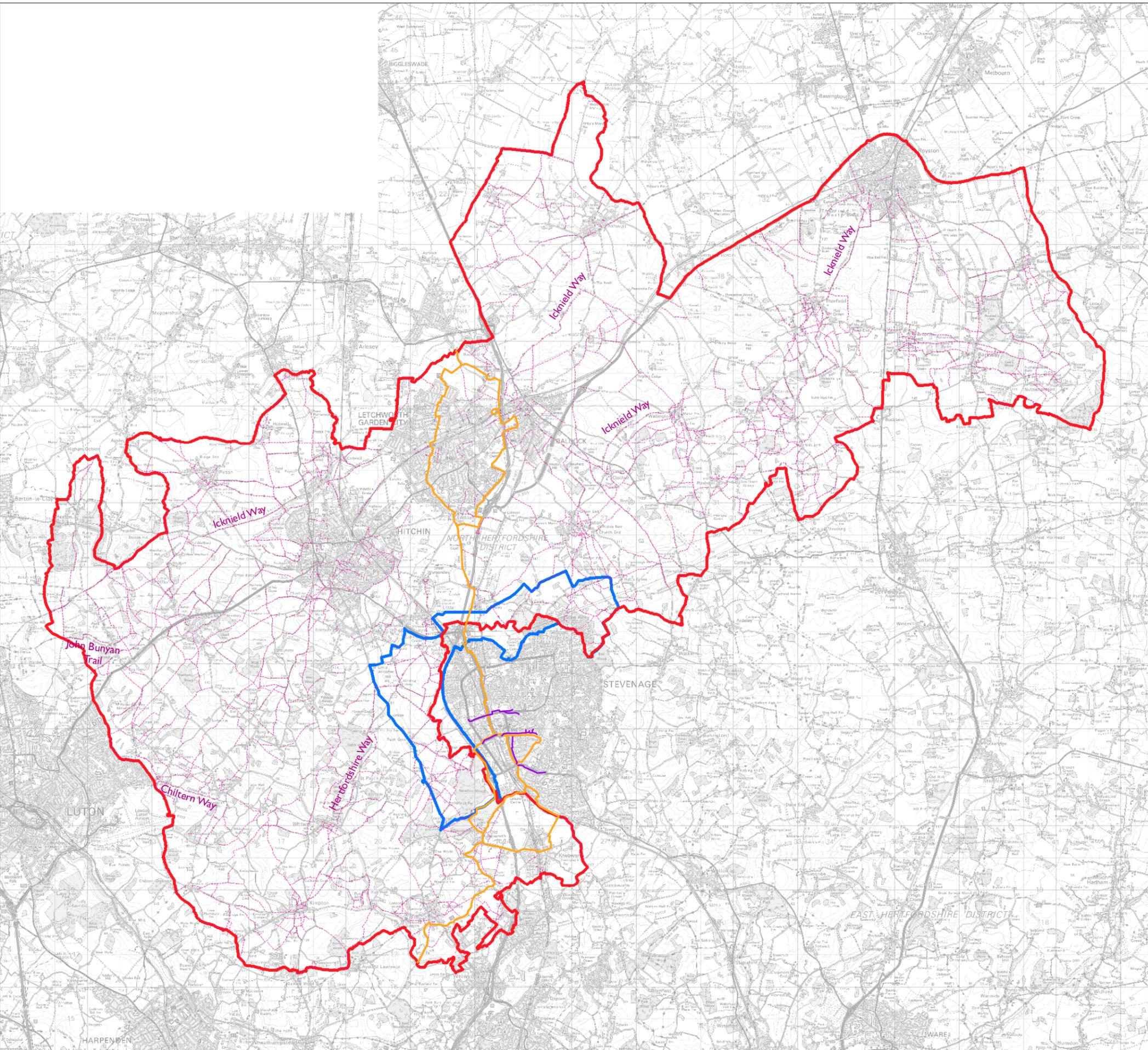
*Icknield Way to the south of Baldock*

# North Hertfordshire Green Infrastructure Plan

## Figure 2.2: Access Links

### Key

-  North Hertfordshire District boundary
-  Proposed SNAP boundary
-  Public rights of way
-  Sustrans National Route 12
-  Sustrans local routes



Source: North Hertfordshire District Council, Sustrans

Date: 04/08/2009  
Revision: A





## LANDSCAPE CHARACTER

2.23. The following datasets were used to build up a picture of landscape character in the District:

- National Character Areas;
- Chilterns AONB Boundary;
- Character areas from the North Hertfordshire and Stevenage Landscape Character Assessment.

### Strategic

- 2.24. The landscape character baseline is formed by three landscape character areas at the national scale and by the character areas within the North Hertfordshire and Stevenage Landscape Character Assessment (which forms part of the county wide landscape assessment).
- 2.25. A small part of the Chilterns Area of Outstanding Natural Beauty (AONB) extends into the western part of the district, covering chalk scarps, hanging woodland and chalk farmland to the west of Stevenage.

### Baseline - National landscape character

- 2.26. At a national scale, three Character Areas fall within the district<sup>5</sup>. These are the *East Anglian Chalk*, which occupies a broad swathe extending from Letchworth Garden City eastwards beyond Royston, and incorporating a section of the Icknield Way, the *Chilterns* which extends to the west of Stevenage and Hitchin and includes part of the Chilterns AONB, and the *South Suffolk and North Essex Clayland* which extends into the south eastern boundary of the district. A very small part of the *Northern Thames Basin* extends into the southernmost part of the district at Knebworth.
- 2.27. Defining characteristics of the *East Anglian Chalk* include a distinctive and open topography (a continuation of the Chilterns) and large scale chalk downland, now mainly under arable cultivation. The landscape is cut by minor chalk river valleys such as the Rhee and crossed by long straight roads and ancient Roman routes such as the Icknield Way, with the A1 and A1(M) corridor partly following the route of the ancient Great North Road. Settlement is limited to a few large towns on key routes, and to compact nucleated valley villages of rural character.
- 2.28. The *Chilterns* is a landscape of chalk hills, plateaux and prominent escarpments, in addition to an extensive dip slope cut by numerous dry valleys, and a number of chalk rivers and streams. These valleys have a landscape of often enclosed, intimate character, which contrasts with the large scale of the beech hanger woodland blocks to the scarp slopes and the extensive open views across areas of chalk downland.
- 2.29. The *South Suffolk and North Essex Clayland* is a broadly flat and chalky boulder clay plateau dissected in places by an undulating river valley topography. The landscape is predominantly arable, with a wooded, historic appearance created by remnant field boundary hedgerows.

---

<sup>5</sup> Countryside Agency (1999) **Countryside Character Volume 6: East of England CA12**

### **Baseline - District landscape character**

- 2.30. At a district level, the North Hertfordshire District Landscape Character Assessment divides the landscape into fifty three discrete character areas (ref **Figure 2.3**). These landscape character areas include elevated and near flat farmed and arable plateaux defined by large scale field patterns, in addition to scarp slopes and settled valley slopes (defined by small scale, compact settlement and winding lanes linking larger plateau settlements). There are a number of river valleys which cut the landscape. These are often well defined U shaped valleys (Beane Valley) fed either by tributary streams or springs (e.g. the Rhee). Notable river valleys include the Oughton and Purwell and the Mimram, in addition to the Upper and Middle Beane and associated tributaries. Intensive arable cultivation has often limited the extent of riparian vegetation associated with such valleys. Also a feature of the chalk landscape are dry valleys associated with the scarp slopes.
- 2.31. In places the landscape has a 'historic' and more varied or intimate mosaic character, notably the wooded parklands and planned estate landscape of Knebworth.
- 2.32. The A1(M) corridor and associated infrastructure, together with large scale employment development associated with Stevenage New Town, forms a prominent and often divisive landscape element within the centre of the district.
- 2.33. Local landscape character areas within the district are crossed by a network of national trails, way marked routes and rights of way, including the Icknield Way which straddles the chalk landscape between Baldock, Ashwell and Royston, and the Hertfordshire Way, which crosses the landscape of the district in a broad and irregular arc from the south west and links to the Letchworth Greenway.
- 2.34. In terms of the landscape character to the fringes of the four towns (Hitchin, Letchworth, Baldock and Royston), this is as follows:
- **Royston** is fringed to the north by *Odsey to Royston*, a rolling chalk arable landscape of large scale and panoramic views, and to the south by the *Scarp Slopes to the South of Royston*. This is an incised chalk scarp slope, overlain with a large scale landscape pattern of arable fields, and with a sparsely settled character. Therfield Heath is a distinctive feature of the landscape;
  - **Baldock** is fringed to the east by the *North Baldock Chalk Uplands*, a landscape of rolling chalk landform and rounded chalk knolls and large rectilinear field under arable cultivation, interspersed with blocks of plantation woodland. To the south of the town lies *Baldock Gap*, a steeply sloping chalk scarp cut by a number of minor dry valleys, creating an undulating landform. Sunken lanes and footpaths are distinctive features of the scarp. The west of Baldock is fringed by *Arlesey – Great Wymondley*, a landscape defined by flat arable farmland adjacent to the Ivel Valley, with more undulating landform and settled character to the south;
  - **Letchworth** is fringed in its entirety by the *Arlesey – Great Wymondley* character area, as described above;
  - **Hitchin** is surrounded to the north and partly intersected by the *River Oughton and Purwell Valleys*, a landscape of grazed water meadows, meandering watercourse and associated belts of wet woodland. Beyond, to the east the

*Arlesey - Great Wymondley area*, as described above. To the west and south of Hitchin is the *Langley Valley*, defining characteristics of which are a broad chalk valley landform overlain by a large scale arable field pattern and sparse woodland cover, with small scale areas of grazing on steeper slopes.

2.35. The landscape character of the SNAP area is set out separately below.

**Key issues and opportunities**

- Sensitive views to and from the scarp slopes within the Chilterns AONB, notably towards the A1(M) corridor and the towns of Stevenage, Hitchin and Letchworth. Also the landscape setting and context to the AONB, and opportunities for further landscape structure enhancement in this buffer zone;
- The A1(M) is aurally and visually discordant and divisive, and physically separates the landscape of the district into two halves. Investigate opportunities for attenuation measures, (green) bridging points and strategic level pedestrian and cycle access links to tie into the existing network;
- The issue of future climate change will have implications for species such as beech and therefore potentially significant implications for landscape and vegetation character. New woodland schemes should seek opportunities for a wider native palette which is adapted to climate change;
- The undulating topography and field boundary network/distribution of woodland blocks often creates a dappled edge to development within the settlements of Baldock and Letchworth) and this could form a template for the absorption and mitigation of further development, as well as a basis for new multi functional green infrastructure corridors/links, including greenways around the principal towns;
- The landscape is often accessible, through national trails and way marked routes, although the provision of public footpaths in rural areas is more sporadic. Field boundary margin enhancements and headlands to arable fields could provide notable opportunities for further green links to tie into this existing network, and also to extend to a wider network including the river valleys, which are presently variable in their accessibility (e.g. the River Rhee, which is accessible near to the historic Ashwell Springs but considerably more variably elsewhere);
- Creation of buffers between intensive arable farmland and areas of habitat, and enhanced habitat linkages (such as hedgerow and small scale farm woodland restoration) and in light of climate change (e.g. around Royston);
- Similarly there is the opportunity to conserve and enhance wetland habitat to the river valleys, creating an expanded wetland habitat which is more resilient to climate change and associated habitat fragmentation.



## SNAP Area

### Baseline

- 2.36. This section sets out the landscape character baseline of the SNAP Area, with reference to the *North Hertfordshire and Stevenage Landscape Character Assessment*. Account has also been taken of the relevant strategies and guidelines for these areas when considering key issues and green infrastructure opportunities. The relevant landscape character areas and a short summary of their characteristics and key strategy objectives are set out below, and shown at **Figure 2.3**.

*Middle Beane Valley* – a sparsely settled tributary valley with wooded crests (including managed hornbeam coppice), but otherwise defined by open arable farmland, with a strongly undulating ‘sculptural’ ridge and vale topography and wide views across the Beane Valley. The landscape strategy for the area highlights opportunities for field boundary enhancement, and the creation of radial footpath routes, in addition to conserving long views, and the enhancement of the semi riparian character of the watercourse.

*Codicote Plateau* – a gently rolling upland landscape bounded by the River Mimram to the south and the west, and incised by smaller valleys. The landscape is mainly under arable cultivation, albeit with parcels of grazing land and paddocks in places. Variation is created by larger blocks of ancient woodland near Knebworth. Key strategic objectives for this area include the management of areas of ancient woodland to encourage a diverse woodland flora, the creation of buffer zones between arable cultivation and areas of semi natural habitat, and hedgerow restoration to re create historic field boundaries.

*Knebworth* – defined by the registered gardens, parkland and wooded/planned estate of Knebworth House. Key characteristics are the mature parkland setting to the Knebworth Estate, including parkland trees, and areas of mature oak woodland and veteran wood pasture (including coppiced hornbeam) and acid, heathy grassland

which provide a contrast to areas of sedge and bog. The character area includes the 12<sup>th</sup> Century church of St Mary and the site of the deserted medieval village of Knebworth. The landscape strategy for the area identifies a number of objectives including the management of ancient woodland to promote a diverse ground flora, the management of oak and hornbeam coppice and the management and enhancement of acid heathland, in addition to conserving and extending the rights of way network.

*Almshoe Plateau* – a gently undulating and open, exposed arable plateau landscape of large scale, with many long views. Visual breaks and variety are provided by small scale deciduous copses. The Kitching Green Lane Recreational Route is a distinctive feature, as is the course of the former Roman Road which joins the A1(M) corridor to the north east, and the landfill site to the north of Norton Green at Stevenage. Key objectives identified in the landscape strategy for the area include management of woodland to promote groundflora diversification, restoration of the landfill site and enhancement of field boundaries/reinstatement of historic boundary lines, together with enhancement of the ecological integrity of Kitching Green Lane.

*Langley Scarp* – a steeply sloping chalk landscape facing the narrow Langley Valley and linking to the wooded Knebworth landscape to the south. The landscape has a large scale field pattern of variable geometry. A well wooded character is created by areas of mature deciduous woodland and the hawthorn hedgerow field boundaries. Long views over the Langley Valley are distinctive. Key objectives of the landscape strategy for this area include the safeguarding of existing hedgerows and the creation of new hedgerow boundaries, in addition to the enhancement of hedgerow species diversity and new hedgerow tree planting. The strategy also identifies the conservation of narrow sunken lanes and hedgebanks as a key objective, together with management of species rich chalk grassland.

*Langley Valley* – a broad chalk valley running from Wellbury to the parklands of Knebworth. Distinctive features include a rolling chalk landform overlain by a large scale arable field pattern, with small scale areas of grazing on steeper slopes. The landscape is generally sparsely wooded, with woodland concentrated in areas of coniferous plantation on the more pronounced areas of rolling chalk landscape. The landscape strategy for the area identifies key objectives as reinstating areas of woodland for connectivity and diversity, as well as replanting broadleaf woodland in areas of plantation, in addition to enhancing the ecological and visual quality of the watercourse and extending the rights of way network, and enhancing areas of chalk grassland habitat.

*Wymondley and Titmore Green* – a small area of rolling chalk landscape of often enclosed and intimate spatial character, due to the presence of an irregular scale field pattern, small winding rural lanes and woodland cover. Key landscape objectives identified by the landscape strategy for this area are the enhancement of habitat linkages through creation of arable farmland buffer zones, the reinstatement of species rich hedgerows on former field boundary lines and to connect areas of woodland, and preservation of the narrow/sunken rural lane network, in addition to enhancing the management of remnant acid grassland areas.

*Arlesey – Great Wymondley* – an area of flat arable farmland to the north adjacent to the Ivel Valley, with more undulating landform to the south. The urban areas of

Hitchin and Letchworth dominate the central part of the character area. The wooded valley landscape of the Ivel is distinctive as are areas of associated mineral workings. The landscape strategy for the area identifies a number of strategic objectives, many of which are similar to those for the *Wymondley and Titmore Green* area above. Additional objectives include further woodland planting to foil settlement edges and to attenuate the AI(M) corridor.

*Baldock Gap* – a steeply sloping chalk scarp cut by a number of minor dry valleys, creating an undulating landform. Characteristic features include a large scale arable field pattern and occasional plantations/shelterbelt woodlands, with distinctive sunken lanes and footpath networks crossing the scarp slope. Rooks Nest House (childhood home of EM Forster and the setting for *Howard's End*) lies within 'Forster Country' in the southern part of the area. Objectives identified by the landscape strategy for the character area are similar to those identified for the *Wymondley and Titmore Green* and *Arlesey – Great Wymondley* areas above.

*Weston Park* – a gently sloping chalk plateau overlain with clay soils. The area is predominantly under arable cultivation, although small scale grazing and the parklands of Weston Park create localised areas of historic character. Ancient broadleaf woodlands are distinctive and create enclosure and an intimate spatial scale. Key landscape guidelines identified by the landscape strategy are to promote diverse silvicultural management for ancient woodlands, to develop and manage species rich wildflower meadows, and to implement a landscape management plan for parklands such as Weston and Chesfield.

### **Key issues and opportunities**

- Enhancement of rights of way should consider opportunities for bridging the AI(M), including potential for land bridges and associated landscape/habitat 'microcosms'. This could enhance connectivity of potential development and landscape spaces within the SNAP area to existing communities within Stevenage, and enhance the accessibility of the wider landscape and GI;
- In places, woodlands fulfil a valuable attenuation function in relation to the AI(M) corridor and there are opportunities to enhance this in relation to potential new residential development, to buffer it from the transport corridor and to create opportunities for new wildlife corridors;
- The creation of new woodlands and shelterbelts/hedgerow linkages has the potential to relate to the creation of an interesting and positive landscape edge (dappled/porous – a foil to new development) which could form part of the mitigation design for any development within the SNAP area;
- Climate change may have implications for the structural landscape palette, and this can be accommodated through a broader native planting palette in future landscape proposals and green spaces associated with development in the SNAP area;
- Tributary watercourses and wetland enhancement provide key opportunities to diversify habitats and contribute to BAP targets and also to create a setting for attractive new waterside routes and 'blue links';

- Woodlands including broadleaf and ancient woodlands within the SNAP area fulfil a valuable foiling function in relation to potential new development, in addition to contributing to shading/cooling and reducing the urban heat island effect;
- Reinstatement of historic field boundaries and creation of species rich hedgerows would have the potential to enhance peri urban biodiversity and habitat connectivity. Retention of remnant hedgerow lines and trees within the SNAP area could form a basis for new greenways and linkages and create a template to drive the form of potential future development;
- The landscape setting of registered parklands such as Knebworth and local parkland estates such as Chesfield should be conserved and enhanced and have the potential to form foci for new areas of semi natural green space;
- Localised habitat creation through implementation of agri environment schemes e.g. acid heathland restoration and wildflower meadows, has the potential to enhance the sense of place and landscape character. Such habitats could also be reflected within new semi natural green space associated with the SNAP area;
- Consider local landscapes with cultural association such as Forster Country as potential sites for semi natural green space within the SNAP, together with opportunities for enhanced landscape linkages to other GI components.

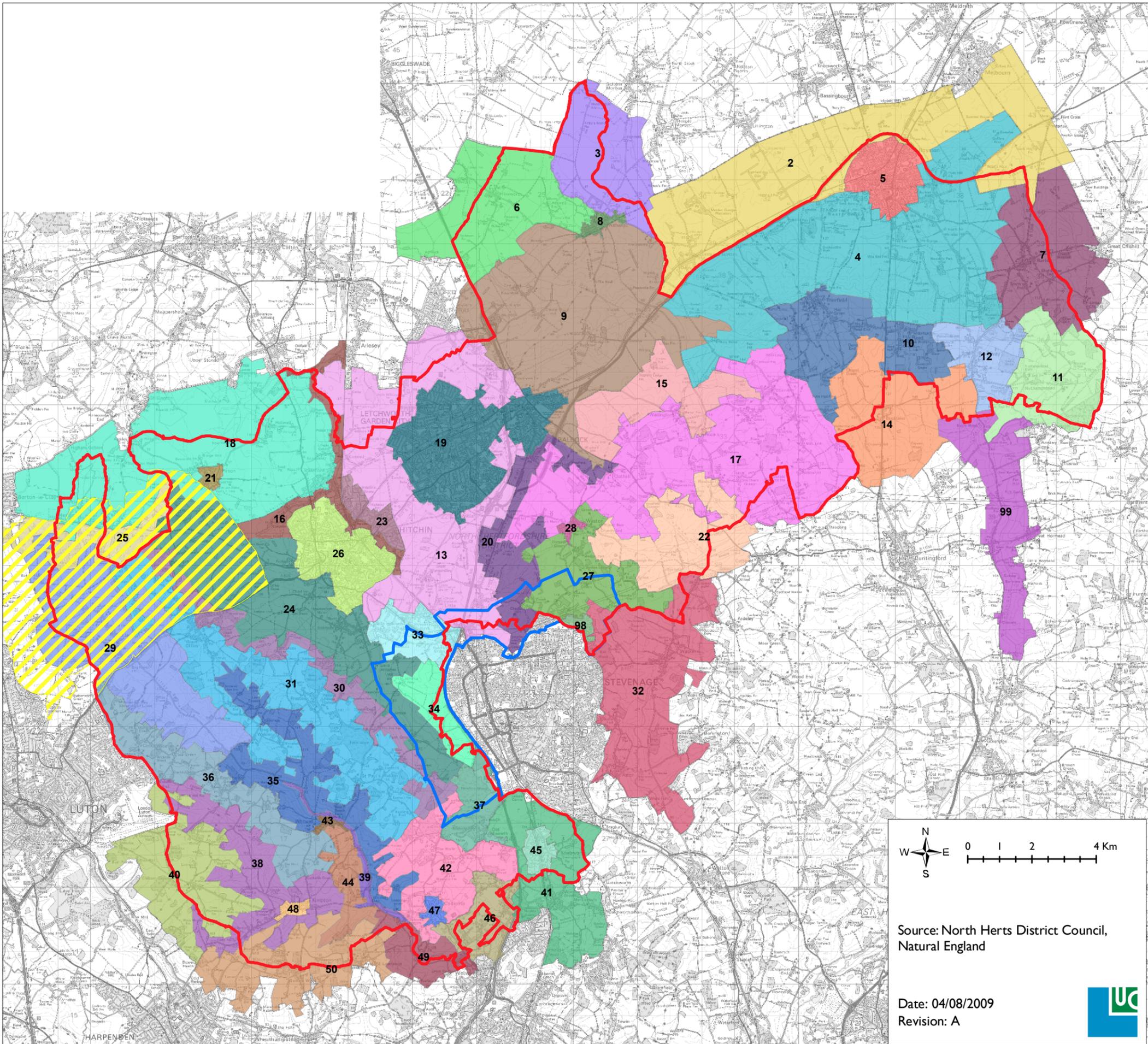


*Sunken lanes, hedgebanks and green lanes are distinctive features of the landscape in the SNAP Area*



# North Hertfordshire Green Infrastructure Plan

Figure 2.3: Landscape Character



## Key

- North Hertfordshire District boundary
  - Proposed SNAP boundary
  - Chilterns AONB
- Landscape Character Areas

- 2, Odsey to Royston
- 3, Steeple Morden Plain
- 4, Scarp Slopes South of Royston
- 5, Royston
- 6, Hinxworth Lowlands
- 7, Barley Scarp Slopes
- 8, Ashwell
- 9, North Baldock Chalk Uplands
- 10, Therfield - Reed Plateau
- 11, Nuthampstead
- 12, Barkway Plateau
- 13, Arlesey - Great Wymondley
- 14, Buckland Plateau
- 15, Wallington Scarp Slopes
- 16, River Oughton and Purwell Valleys
- 17, Weston - Green End Plateau
- 18, Pirton Lowlands
- 19, Letchworth
- 20, Baldock Gap
- 21, Pirton
- 22, Upper Beane Valley Tributaries
- 23, Hitchin
- 24, Langley Valley
- 25, North Chilterns Scarp
- 26, Hitchin
- 27, Weston Park
- 28, Weston
- 29, Lilley Bottom
- 30, Langley Scarp
- 31, Offley St Paul's Walden
- 32, Middle Beane Valley
- 33, Wymondley and Titmore Green
- 34, Almshoe Plateau
- 35, Whitwell Valley
- 36, Breachwood Green Ridge
- 37, Knebworth Parklands
- 38, Kimpton and Whiteway Bottom
- 39, River Mimram (Subarea)
- 40, Peters Green Plateau
- 41, Datchworth Settled Slopes
- 42, Codicote Plateau
- 43, Whitwell
- 44, Whitwell Valley
- 45, Knebworth
- 46, Danesbury - Rabley Heath
- 47, Codicote
- 48, Kimpton
- 49, Codicote Bottom Arable Valley
- 50, Blackmore End Plateau
- 98, Great Ashby (part)
- 99, Upper Quinn Valley



## CULTURAL HERITAGE

### Strategic Cultural and Historic Sites

2.37. In order to build up a picture of the historic and cultural landscape of North Hertfordshire, the following datasets have been described and mapped:

- Registered parks and gardens of historic interest;
- Scheduled Ancient Monuments;
- Historic Landscape Characterisation.

2.38. Cultural heritage features are shown at **Figure 2.4**.

### Registered Parks and Gardens

2.39. There are 12 registered parks and gardens within North Hertfordshire District, nine of which are listed grade II, two are grade II\* and one is grade I. The three key parks and gardens are St Paul's Waldenbury Gardens, Temple Dinsley and Knebworth Park (now a Country Park). St Paul's Waldenbury Gardens are listed Grade I and comprise of 150 hectares of wooded parkland (with some work by the landscape architect Sir Geoffrey Jellicoe) surrounding the former home of Queen Elizabeth, the Queen Mother. The park is free to enter and is accessible from the Hitchin to the Chilterns Cycle route.

2.40. Knebworth Country Park forms the setting to the 16<sup>th</sup> Century Knebworth House and includes 625 hectares of grassland with extensive gardens originating in the 17<sup>th</sup> Century. The Grade II\* listed park which features a herd of deer also acts as a nationally recognised events venue throughout the summer. The park is open to the public (seasonal, paid entry) and easily accessible through its close proximity to the A1/A1(M) and route 12 of the national cycle network which runs adjacent to the park.

2.41. Also designated Grade II\* is the 18<sup>th</sup> Century parkland at Temple Dinsley. The former estate of 200ha has been reduced to 10ha of parklands surrounding the house. The grounds feature early 20<sup>th</sup> Century gardens designed by Gertrude Jekyll and Sir Edwin Lutyens, however the site is not open to the public.

2.42. Of the remaining nine gardens, all of which are listed Grade II, only four are open to the public. These are the 18<sup>th</sup> Century parkland and woodland at Putteridge Bury, 19<sup>th</sup> Century gardens at Hexton Manor, and the 20<sup>th</sup> Century gardens of Broadway and Howard Park in Letchworth.

### Scheduled Monuments (SAMs)

2.43. There are 58 scheduled monuments within the district, and 3 located within Stevenage, one of which is within the boundaries of the SNAP area. Many of the SAMs represent minor earthworks which signify great historic importance but display little in the way of distinctive features above the ground.

2.44. The district contains numerous interesting and accessible earthwork sites, including frequent Neolithic and Bronze Age Barrows, medieval moated sites, and Iron Age hill

forts. More interesting earthworks include the remains of several castles including the 12<sup>th</sup> Century Motte and Bailey at Toot Hill, Pirton, Great Wymondley Castle, a motte and bailey at Tuthill Farm, south west of Royston and Ravensburgh Castle, to the west of the district. Arbury Banks Hill Fort (originating c 1000BC) and later Roman Enclosure is another distinctive feature, near Ashwell. Many of these sites are situated in former Romanic and medieval settlements such as the medieval village of Pirton where Toot Hill fort is sited. Another important Roman site is the former settlement at the crossing of the old Great North Road and the Icknield Way at Baldock (Wall's Field).

- 2.45. Other sites include the 13<sup>th</sup> Century man-made caves at Royston and the 14<sup>th</sup> Century remains of Minsden Chapel, near Preston, formerly a stop on the pilgrimage route to the abbey at St Albans, both of which are open to the public. Another key site is King James Palace, Royston which is a Grade I Listed Building).

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

- 2.46. The HLC shows a more intact and intimate scale early (pre 18<sup>th</sup> Century) Enclosure landscape to the west of the A1(M). Whilst there are concentrations of this small scale landscape to the east of the motorway, most notably to the east of Baldock, much of the landscape here has a considerably larger scale historic pattern (the legacy of mid 20<sup>th</sup> Century agriculture).

### **Key Issues and Opportunities**

- *Sites of exceptional or particular importance:* Possible connection of St Paul's Waldenbury and Knebworth Country Park using tracks running through Graffridge, Warren, and Holl Lays Wood's;
- *Letchworth Greenway:* Opportunity to connect the historic Broadway Gardens and Howard Park in Letchworth out into the wider greenway;
- *Connecting cultural sites:* Option to link Knebworth Park to other cultural sites e.g. Forster Country, through a new greenway around Stevenage;
- *Green gateway into Luton:* Putteridge Bury parkland and woodland border onto Luton's urban area as well as being adjacent to the main access route of the A505 which connects Hitchin and Luton;
- *Connectivity:* Opportunity to establish pedestrian/green transport links between sites and increase awareness of significant sites especially in smaller settlements such as Reed which contains numerous SAM sites. New routes could be created with cultural sites as destination points with routes based on themes such as ancient forts and/or Roman Roads. Using landscape for educational routes. Also reinstating historic landscape pattern as part of a network of multifunctional corridors;
- *Developing sites:* Opportunity for new spaces and settings for certain SAM sites based on interpretation of existing features (e.g. Baldock Roman Settlement at Wall's Field);

- *Accessibility:* Around half of the listed parks and many of the SAMs are located within private land so are not accessible to the public;
- *Combining SAMs and green space:* Some of the SAMs are located within existing public parks and green space. These include the domed ice house in Weston Park and the bridge at Hoo Park.

## **SNAP Area**

### **Registered Parks and Gardens**

- 2.47. Knebworth Park is the only registered park or garden within the SNAP boundary. However only a small section of the park is within the SNAP area, the majority of the park is located within the wider district.
- 2.48. The area to the north of Stevenage known as ‘Forster Country’ is an important landscape to the area in view of its historic associations, and is the focus of a Local Heritage Initiative. The countryside here not only contains the former home of E. M. Forster at Rook’s Nest House but also has strong associations with much of his work.

### **Scheduled Monuments (SAMs)**

- 2.49. The only SAM within the boundaries of the SNAP is the remains of a medieval church at Chesfield. All that remains of the 14<sup>th</sup> Century church is the simple rectangular nave and chancel. The church near Graveley is open and accessible to the public.

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

- 2.50. SNAP West has a higher proportion of intact pre 18<sup>th</sup> Century Enclosure landscape than SNAP East, where historic landscape is interspersed with field boundary loss, the legacy of 20<sup>th</sup> Century agriculture.

### **Key Issues and Opportunities**

- *Forster Country:* Opportunity to designate area as a Country Park or neighbourhood park in order to promote conservation of the area and to develop green infrastructure routes through surrounding neighbourhoods. The Country Park could extend north to incorporate Chesfield Park and Chesfield church. There is also the opportunity to incorporate this area into a possible Stevenage greenway or radial green route/loop;
- *Knebworth Park:* Important to conserve the setting of Knebworth Park from the development of the SNAP. Opportunity to develop buffer zone between development and the park as landscaped open space;



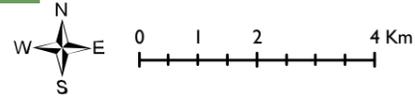
*View across Forster Country to Chesfield Park*

# North Hertfordshire Green Infrastructure Plan

Figure 2.4: Cultural Heritage

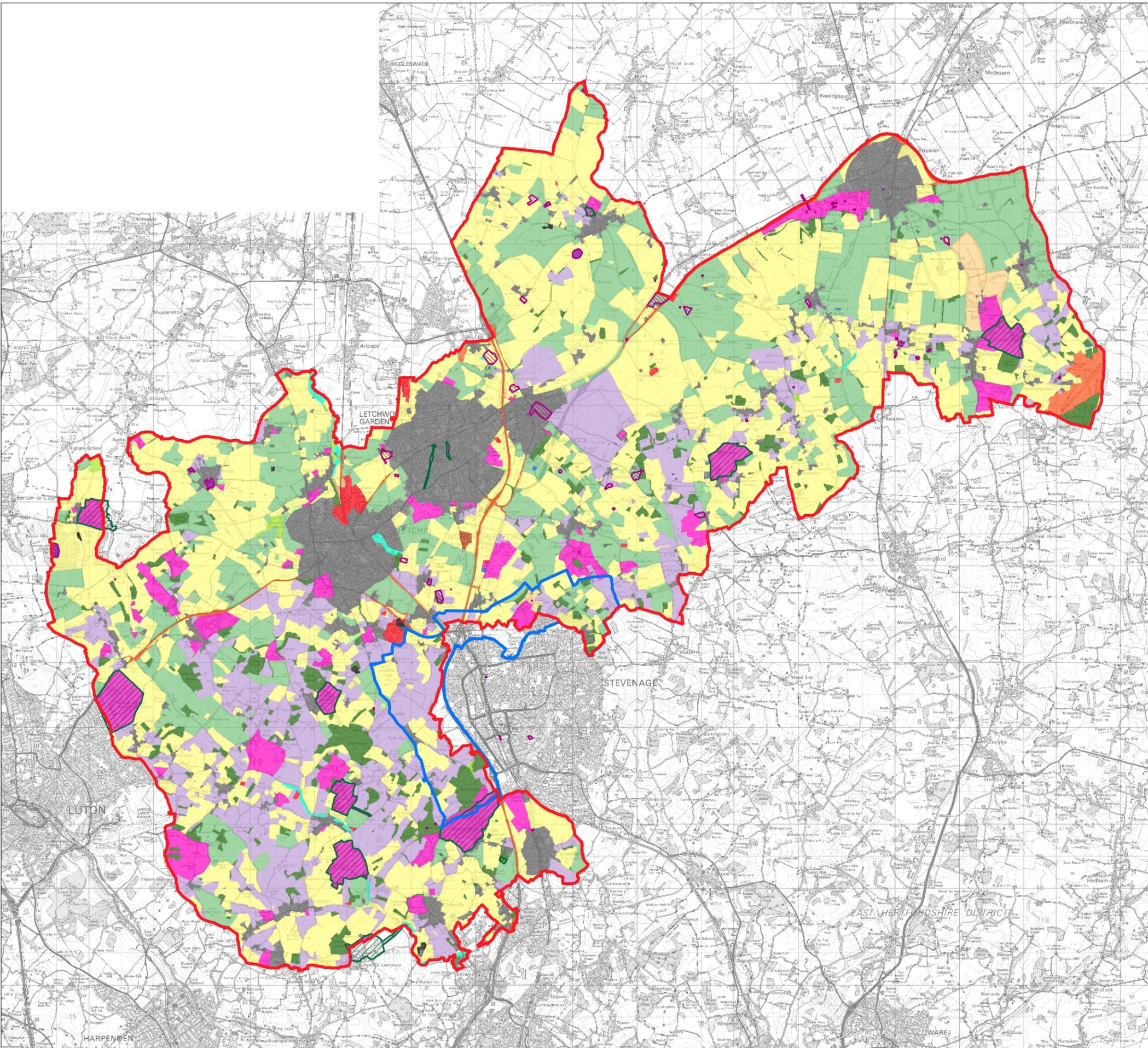
**Key**

-  North Hertfordshire District boundary
  -  Proposed SNAP boundary
  -  Scheduled monuments
  -  Historic parks and gardens
- Historic Landscape Character (HLC)
-  Pre 18th C enclosure
  -  Built-up areas - historic
  -  Built-up areas - modern
  -  Communications
  -  Commons, wastes, heaths
  -  Historic earthworks
  -  Horticulture
  -  Inland - managed wetlands
  -  Industry
  -  18-19th C enclosure
  -  Marginal
  -  Mineral
  -  Miscellaneous
  -  Parks, gardens, recreation
  -  20th C agriculture
  -  Water features
  -  Woodlands



Source: Hertfordshire County Council  
English Heritage

Date: 04/08/2009  
Revision: A





## ECOLOGY AND BIODIVERSITY

2.51. The following datasets were mapped in order to build up a picture of ecological character:

- SSSIs and citations;
- Local Nature Reserves;
- Ancient Woodland Inventory; and
- Local/District Wildlife Sites.

2.52. In addition reference was made to the Hertfordshire Biodiversity Action Plan and Key Biodiversity Areas Map (areas shown at **Figure 2.6**).

### Strategic

#### Baseline

2.53. The nature conservation context (designations) is shown at **Figure 2.5**. The 'Key Biodiversity Areas' map produced for the Hertfordshire Biodiversity Action Plan (BAP)<sup>6</sup> provides a broad characterisation of North Hertfordshire in terms of semi-natural habitats; see **Table 2.8**.

**Table 2.8: Key concentrations of semi-natural habitat in North Hertfordshire according to Key Biodiversity Areas map<sup>1</sup>**

Habitat	Main concentration of habitat type within district	Key sites
Chalky boulder clay woodlands	To the south and west of Royston	Sandon/Green End, Clothall/Wallington/Weston, Reed, Cokenach Estate.
Chalk grassland	To the west of Royston	Therfield Heath SSSI
Wet meadows and fens	Hiz Valley Catchment (Ickleford/Oughton Head/Purwell)	River Hiz
Oak/ hornbeam woodland	The area immediately south west of Stevenage	Knebworth Woods SSSI

2.54. The predominant land use at the district scale is arable agriculture. In common with many counties further to the east, semi-natural habitats are present largely as relatively small fragments in this wider matrix of intensive agricultural land use. Of particular note, there are a large number of small Ancient Woodland Inventory (AWI) sites distributed across the south of the district and concentrations west of Stevenage south of the A505 corridor (see **Figure 2.5**). Woodland habitats include

<sup>6</sup> Hertfordshire Biodiversity Partnership Group (2006) **A 50 year vision for the wildlife and natural habitats of Hertfordshire**. Hertfordshire Environmental Forum

upland oak woods, lowland mixed deciduous woodland and wet woodland. There is also a large network of small District Wildlife Sites. These overlap in large part with AWI sites to the south but are distributed evenly in the north also. Several of these Wildlife Sites are linear routes of some length e.g. Therfield and Duck's Green and Kelshall Lanes, to the east and Icknield Way, to the west.

- 2.55. In terms of statutory nature conservation sites there are only three SSSIs in the district. Knebworth Woods SSSI and Wain Wood SSSI are oak/hornbeam woodlands. Therfield Heath SSSI is the most important herb rich chalk grassland in the county.<sup>7</sup> Collectively the three sites occupy a small fraction of the district and all three are widely spaced from one another (see **Figure 2.5**). Habitat fragmentation is therefore an issue. Isolated areas of acid grassland persist in the south western part of the district.

### **Key GI Issues/Opportunities**

- **Connectivity:** Semi-natural habitats are highly fragmented across the district. This limits the success of ecological restoration work as plants and animals may not be able to colonise new habitats;
- **Higher-level stewardship (HLS):** A priority focus of HLS funding at the district scale are 'Chilterns and East Anglian Chalk'<sup>8</sup> habitats and threatened farmland birds;
- **Key Biodiversity Areas:** This approach targets conservation action towards nine areas in the district where concentrations of semi-natural habitats occur;
- **Functioning water courses:** The River Hiz catchment is the principal riverine/wetland biodiversity enhancement zone;
- **Key flagship species:** Conservation actions may be anchored around certain charismatic species. For example, otter and water vole (both of which have healthy populations in North Herts), the pasque flower and chalk hill blue butterfly (both of which are nationally rare but present locally within the district);
- There is the potential for grassland re creation and restoration to link grassland sites such as Therfield Heath, near Royston, and also to link acid grassland areas to the south west, as part of a series of enhanced links which also respond to wildlife connectivity and sense of place.

---

<sup>7</sup> Natural England (1984) **Therfield Common SSSI citation** (source: [www.naturalengland.org.uk](http://www.naturalengland.org.uk))

<sup>8</sup> Natural England (2008) **Environmental Stewardship Target Area Statement 2008: Chilterns and East Anglian Chalk**. Natural England East of England Team.



*Important species within the District include the Pasque Flower and the Chalk Hill Blue Butterfly*

## **SNAP Area**

### **Baseline**

- 2.56. SNAP is located centrally within Key Biodiversity Area 9<sup>9</sup>, which comprises concentrations of oak/hornbeam woodlands. Knebworth Woods SSSI is located within the SNAP area. This site is a relatively large (120.8ha) oak/hornbeam woodland located between Langley and the A1(M) corridor. In terms of its nature conservation value, it is considered to be the most important woodland of its type in north Hertfordshire.<sup>10</sup> A number of woodland district level Wildlife Sites are distributed evenly across the remaining SNAP area.

### **Key GI issues/opportunities**

- **Woodland creation:** Oak/hornbeam woodland constitutes the predominant semi-natural habitat within the SNAP area. It is a nationally rare habitat type and is highly fragmented.
- **Community benefits:** The need to promote the demonstrable benefits of natural habitats to communities in Stevenage (e.g. as a resource for recreation, exercise, education) will be key to securing funding to biodiversity conservation (e.g. lottery funding, agri-environment subsidies) and also linking with other green infrastructure functions.
- **Partnerships and funding:** The Forestry Commission may be a key partner in respect of woodland creation. There are options for delivery through the

<sup>9</sup> Hertfordshire Biodiversity Partnership Group (2006) **A 50 year vision for the wildlife and natural habitats of Hertfordshire**. Hertfordshire Environmental Forum

<sup>10</sup> Natural England (1985) **Knebworth Woods SSSI citation** (source: [www.naturalengland.org.uk](http://www.naturalengland.org.uk))

England Woodland Grant Scheme (WGS) within the SNAP area. The Woodland Trust are currently campaigning to create a >800 acre woodland in Sandridge between St Albans and Harpenden. This project may be a pertinent model for SNAP, both in terms of securing appropriate land management and funding in an urban fringe area. The proposed Sandridge woodland also links ecologically south west of the SNAP area;

- Biodiversity enhancement to the north of SNAP: Increased visitor pressure and attendant ecological impacts may result from housing growth. With Knebworth Woods SSSI acting as a key biodiversity resource in the south of the SNAP area there is a need for a comparable resource in the north. Both Box Wood (AWI site) and the adjoining Pryors Wood (Hertfordshire and Middlesex Wildlife Trust reserve) could be further enhanced in this capacity either through habitat enhancement or access management. Further habitat/access linkages could be promoted through to Brooches Wood, Tilekiln Wood and Harbourclose Wood (District Wildlife Sites).



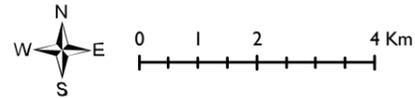
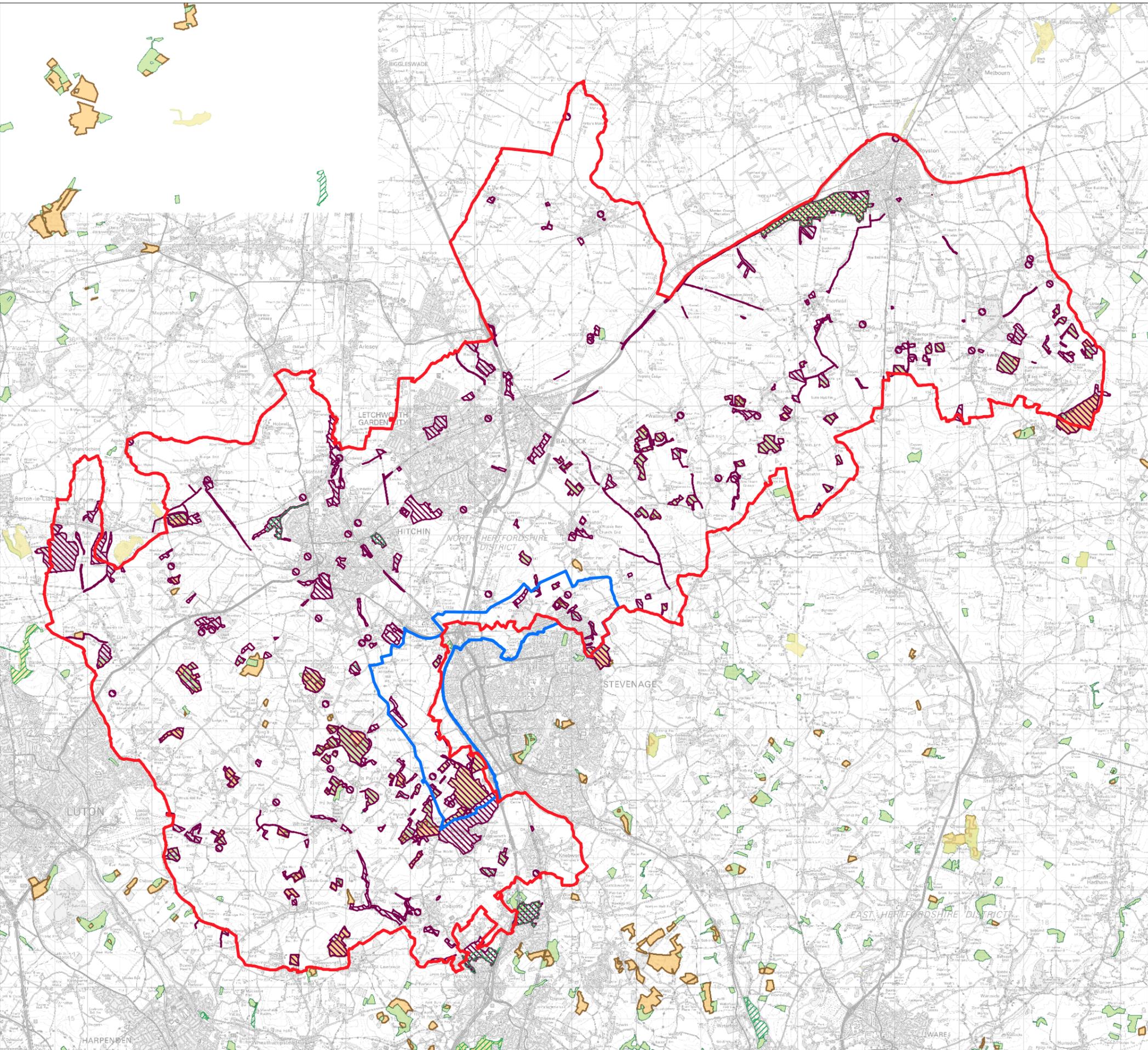
*Rivers are an important ecological resource, as here at the River Rhee, Ashwell*

# North Hertfordshire Green Infrastructure Plan

Figure 2.5: Biodiversity (Nature Conservation Designations)

**Key**

-  North Hertfordshire District boundary
-  Proposed SNAP boundary
-  Sites of Special Scientific Interest (SSSIs)
-  Local Nature Reserves (LNRs)
-  District wildlife sites
-  Ancient & semi-natural woodland
-  Ancient replanted woodland



Source: Natural England, North Herts District Council

Date: 04/08/2009  
Revision: A





# North Hertfordshire Green Infrastructure Plan

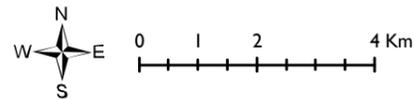
## Figure 2.6: Biodiversity (BAP Habitats)

### Key

-  North Hertfordshire District boundary
-  Proposed SNAP boundary
-  Fens
-  Lowland beech and yew woodland
-  Lowland calcareous grassland
-  Lowland dry acid grassland
-  Lowland heathlands
-  Lowland meadows
-  Lowland mixed deciduous woodland
-  Undetermined grassland
-  Undetermined woodland
-  Upland oakwoods
-  Wet woodland

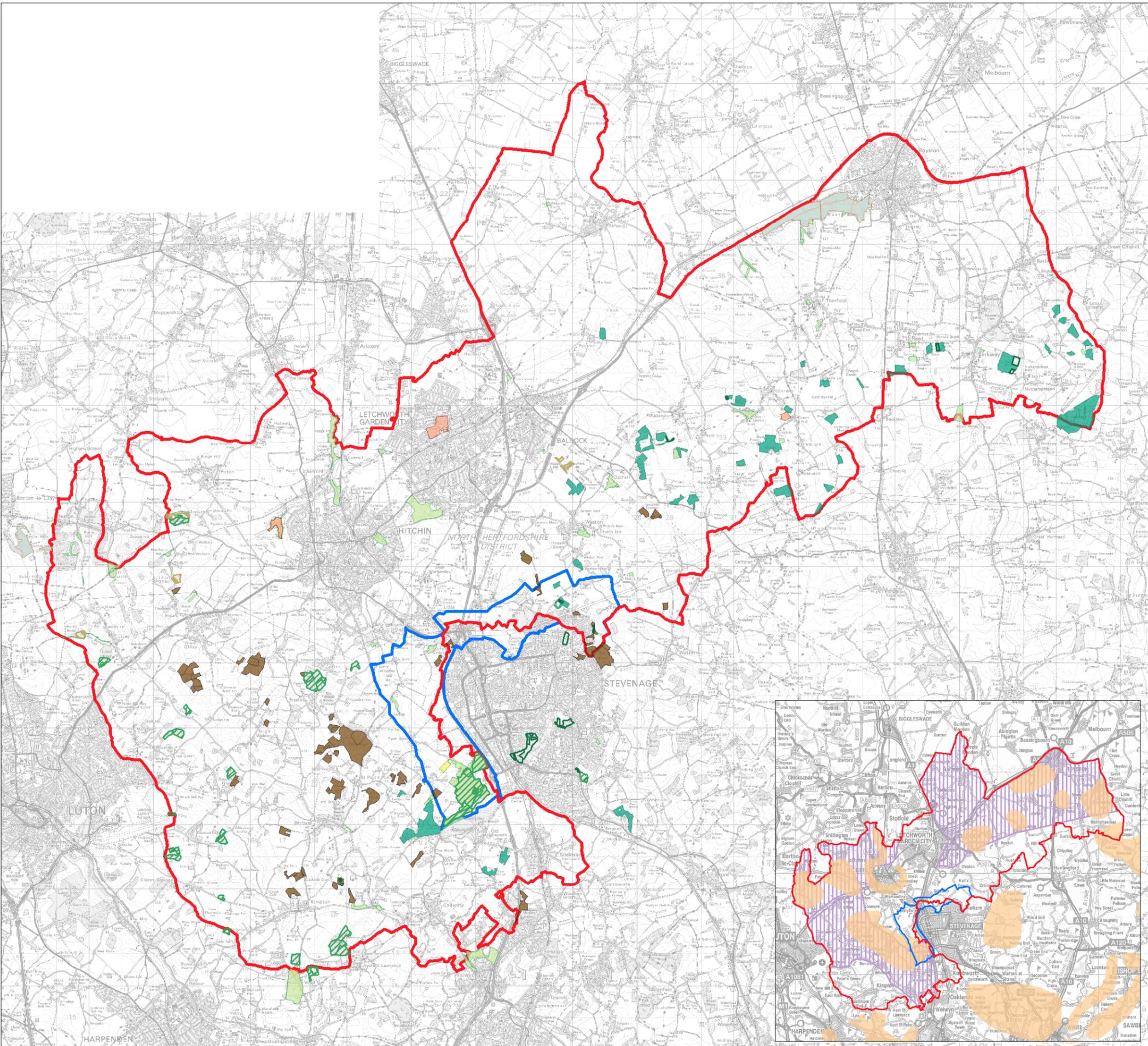
### Inset Map

-  Key biodiversity areas
-  High biodiversity areas for birds



Source: Natural England, Hertfordshire Biological Records Centre

Date: 04/08/2009  
Revision: A





## FUNCTIONAL ECOSYSTEMS AND HYDROLOGY

- 2.57. Ecosystems fulfil many roles, including the potential for control of air pollution, climate change and local climate management, flood risk management and regulation of water quality. The following section provides a strategic overview of the functional ecosystems context for North Hertfordshire, Stevenage and the surrounding area.
- 2.58. The following data was used to complete this part of the characterisation: North Hertfordshire District Strategic Floodrisk Assessment.

### ***Air pollution***

- 2.59. Pollution control is provided by woodlands and other vegetation, for example woodland can absorb large quantities of atmospheric pollution, especially 'particulates', as noted by *The Countryside in and around Towns*<sup>11</sup>. Local authorities have a duty to monitor air quality in their district under the Environment Act 1995 and declare an Air Quality Management Area (AQMA) in any area where air quality objectives are not met or likely not to be met. Neither North Hertfordshire nor Stevenage has declared any AQMAs.<sup>12</sup>

### ***Climate change and local climate management***

- 2.60. In the UK, buildings contribute almost half of the country's CO<sub>2</sub> emissions<sup>13</sup>. Trees and other plants can act as a sink for carbon when they are actively growing although the potential for net removal of carbon from the atmosphere depends on the age structure of woodland. More significant for urban areas is the potential for green infrastructure to improve microclimate and reduce heat stress during the summer months by provision of direct shade for people and by reducing the urban heat island effect. Shading of buildings has the added benefit of reducing the demand for air conditioning and the associated emissions from energy generation. Urban trees and planting can also screen buildings from wind chill, potentially reducing winter energy consumption. Green spaces within the district can thus perform an important climate control function, particularly where they are located within the urban area and this function will become increasingly important with climate change.
- 2.61. Existing concentrations of woodland in the district are present at Knebworth Woods and around Chesfield and Weston, in addition to Clothallbury and to the south of Royston. Expansion of trees and woodland in the district should also take account of the potential ecological benefits of creating buffers around or improving connectivity between existing areas of woodland with high biodiversity value.

### ***Flood risk management***

- 2.62. Properly managed and protected flood plains and water meadows can store flood waters to help to protect nearby urban areas from flooding. Flood risk within North

---

<sup>11</sup> Countryside Agency and Groundwork (2004) **The Countryside in and around Towns, Countryside Agency and Groundwork**

<sup>12</sup> UK Air Quality Archive. Available from <http://www.airquality.co.uk/archive/laqm/list.php>.

<sup>13</sup> DEFRA (2004) **Sustainable Energy**. [Online] Available from: <http://www.defra.gov.uk/Environment/energy/betterbuildings.htm> [Accessed 12 February 2007].

Hertfordshire is described by the district's **Strategic Flood Risk Assessment (SFRA)**<sup>14</sup>. There are two principal drainage catchments within the district:

- The River Ivel served by its tributaries the Pix Brook, the Purwell, the Hiz and the Oughton to the north;
- The River Lea catchment served by the Rivers Mimram and Kim in the south east of the Borough.

2.63. The main areas of predicted fluvial flooding identified by the SFRA are summarised in **Table 2.9**. The Floodrisk Assessment mapping is shown at **Figure 2.7**.

**Table 2.9: Key areas of predicted fluvial flood risk**

River/Area	Summary of flood risk
River Hiz	Generally limited to localised areas along its predominantly culverted upstream headwaters.
River Purwell	Predicted flooding is extensive but generally constrained to the meadows, common and recreational land running through the eastern side of Hitchin.
River Oughton	Generally constrained to Oughtonhead Common and recreational land to the west of Hitchin.
Ippollitts Brook and Ash Brook	Generally constrained close to their natural channels for the majority of their reaches.
River Ivel (headwaters)	Generally constrained within or close to the natural channel due to the relatively steep valley sides.
Pix Brook	Negligible and largely restricted to a couple of isolated locations, at Norton Common and Rushby Mead in Letchworth Garden City.
River Mimram	Generally constrained close to the river channel due to the steep valley sides.
Land to west of Stevenage	Generally constrained to the low lying wet woodland areas adjacent to Newton Wood, to the south west of Norton Green.
Land to north of Stevenage	No main rivers are shown to affect land to the north of Stevenage.
East of Luton, near to Tea Green	Development in this area could potentially exacerbate fluvial flood risk within the Mimram and Kim catchments due to connectivity between local hydrogeological and fluvial catchments.
Royston	The town of Royston has no watercourses within its immediate vicinity, therefore fluvial flood risk was not assessed.

Source: NHDC Strategic Flood Risk Assessment, July 2008

2.64. Flood risk should be considered when identifying appropriate types of green infrastructure to promote within the flood plain. For example, the flood plain provides many opportunities for biodiversity and provision of wetland habitats to encourage Biodiversity Action Plan species and habitats. In terms of the other

<sup>14</sup> North Hertfordshire District Council (2008) **Strategic Flood Risk Assessment, July 2008**

functions of green infrastructure, the flood plain is an appropriate place for semi-natural green space with informal public access, but is not appropriate for more formal recreational facilities such as sports pitches and access paths with hard surfaces (as these are prone to flooding and may also increase risk of flooding in the surrounding area). The SFRA identified a number of areas within North Hertfordshire which could offer strategic flood mitigation as reproduced in **Table 2.10**. These may also have wider GI potential.

**Table 2.10: Strategic flood mitigation opportunities**

Location	Description of potential flood mitigation scheme	Potential benefits per SFRA
Hitchin (South East)	Land bounded by the railway, Nine Springs Way and Ashbrook provides the potential for the provision of a strategic flood storage facility.	The scheme could facilitate future development upstream (to the south) by allowing downstream flows to be regulated thus benefiting flood prone areas downstream along the River Purwell. The scheme could have the potential benefits of alleviating adjacent existing development deemed to be at high probability of flooding, and may offer amenity benefits within a carefully designed water body, and biodiversity benefits by way of wetland habitat creation.
Hitchin (South)	Future urban expansion of Hitchin could trigger the need for a southern relief road. Where any future southern relief road crosses existing watercourses, opportunities arise for the impoundment of floodwater upstream of the road embankment.	Potential benefit to flood risk areas downstream. The schemes may offer amenity benefits within a carefully designed water body, and may offer biodiversity benefits by way of wetland habitat creation.
Hitchin (North West)	Land to the north west of Hitchin immediately adjacent to the River Oughton provides the potential for the provision of a strategic flood storage facility.	The scheme could facilitate future development upstream (to the west) by allowing downstream flows to be regulated thus safeguarding areas downstream along the River Oughton, and River Hiz at Ickleford. The scheme may offer biodiversity benefits by way of wetland habitat creation.
Letchworth Garden City (Central)	Land at Norton Common provides some potential for the provision of a strategic flood plain storage facility.	The scheme could facilitate future urban growth by allowing downstream flows to be regulated through attenuation, thus safeguarding areas downstream along Pix Brook. The scheme may offer amenity benefits within a carefully designed water body, and biodiversity benefits by way of wetland habitat creation. This would need to be assessed at a more detailed level once specific site allocations and

Location	Description of potential flood mitigation scheme	Potential benefits per SFRA
		proposed developments have been approved.
Letchworth Garden City (North)	Pix Brook Flood Storage Reservoir, located to the north of Letchworth Garden City, provides the potential for expansion of an existing strategic flood storage facility.	This expansion would provide additional storage capacity for an increase in surface water from new developments in the area. The scheme could facilitate future development on the northern fringe of Letchworth Garden City; this would be achieved by allowing downstream flows to be regulated by flood gates thus safeguarding areas downstream along the Pix Brook at Stotfold in the Mid Bedfordshire District.
Kimpton	A temporary (but still strategic) groundwater flood storage facility and pumping arrangement near Kimpton could be formalised.	Help safeguard areas downstream along the River Mimram.

Source: NHDC Strategic Flood Risk Assessment, July 2008

### Key issues and opportunities

2.65. There are opportunities to:

- Provide appropriate types of informal green space along Pix Brook, the River Oughton, the River Hiz and the River Purwell to perform flood risk mitigation, as detailed in the SFRA;
- Improve the climate change and local climate management function of existing green spaces in the town centre, through appropriate planting. There is also potential to increase coverage of green spaces and trees within current and planned built up areas of the district, which would result in enhanced climate mitigation and reduction of the urban heat island effect;
- Assess the demand for allotments and community gardens to encourage food growing and promote related self-sufficiency, recreation and education benefits and incorporate allotments, community gardens and greenhouses as part of new developments.

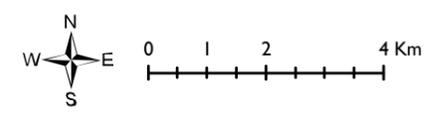
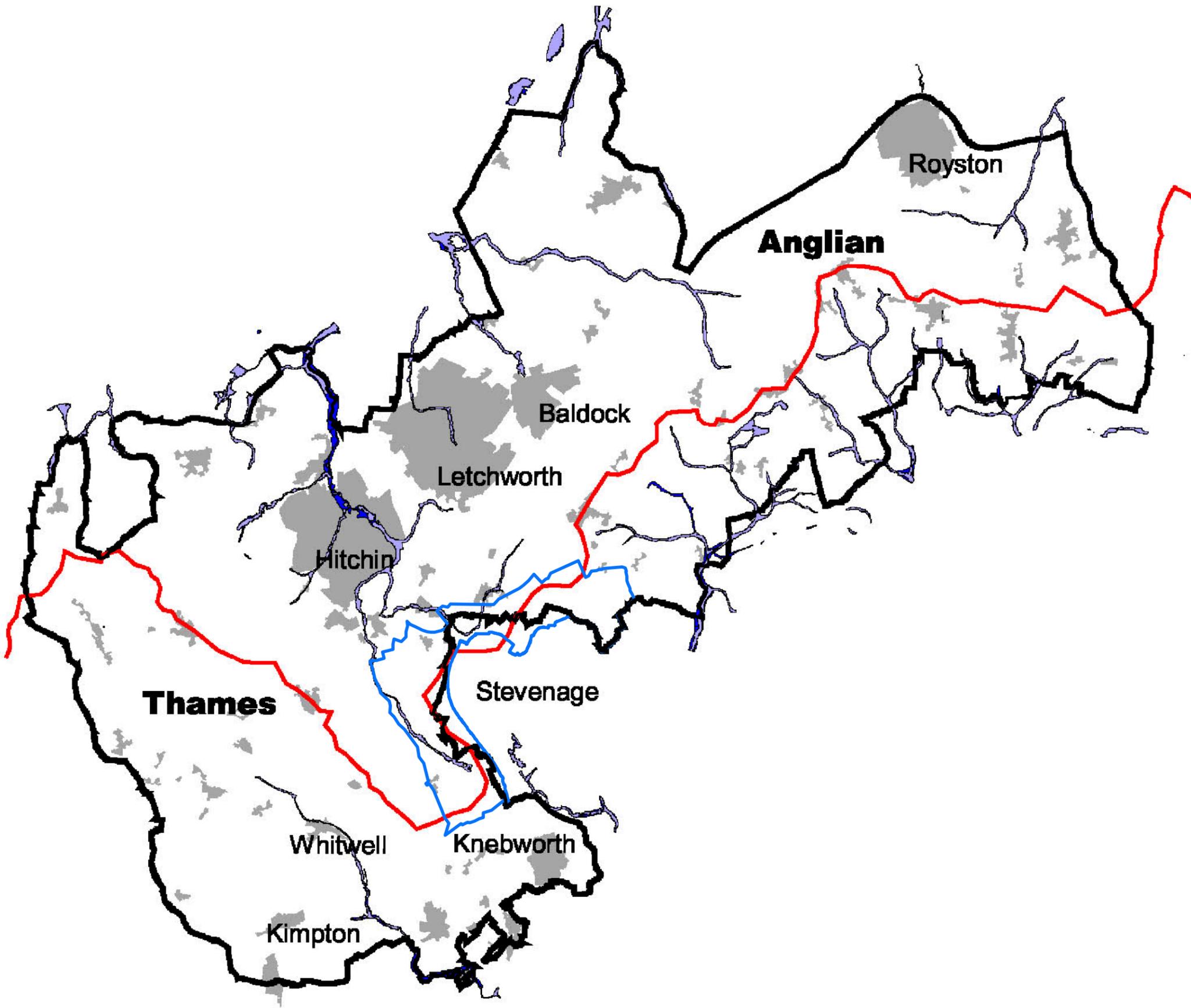


*Floodplain green space, as seen here alongside the River Mel at Melbourn (Melbourn Riverside Park), in the adjacent South Cambridgeshire District*



**North Hertfordshire Green Infrastructure Plan**  
**Figure 2.7: Functional Ecosystems**

- Key**
-  North Hertfordshire District boundary
  -  Proposed SNAP boundary
  -  Flood zone 2
  -  Flood zone 3
  -  Water Authority boundary



Source: North Herts District Council

Date: 04/08/2009  
 Revision: A





## SOCIO-ECONOMIC CHARACTERISATION

2.66. The following datasets were used to build up a picture of socio economic characteristics:

- Health Deprivation;
- Income Deprivation; and
- Indices of Multiple Deprivation.

### Why is it important?

- 2.67. It is important to understand the socio-economic baseline for the district partly to provide a general appreciation of its character but more importantly because provision of a network of high quality green space can help to tackle a number of aspects of socio-economic deprivation. Areas of socio-economic deprivation often contain the most neglected and under-used areas of public space and therefore the most vulnerable communities currently gain the least benefit from the many opportunities that green infrastructure has to offer. Investment targeted in these areas would help to redress this imbalance.
- 2.68. People want to live, work and shop in attractive areas and this helps to increase property prices and stimulate the local economy in areas with good quality green space. In a recent MORI poll, the government found that liveability issues (including improved parks) were one of the top four responses to the question ‘what would improve quality of life in your area?’<sup>15</sup> Attractive surroundings also encourage businesses to relocate in a region, which in turn provide employment and attract customers.
- 2.69. The good management of public space helps to improve an area by reducing both the perception of crime and crime itself, as well-used public spaces ensure the natural surveillance of public areas. The rehabilitation of a park in a deprived area is often seen as a metaphor for the rehabilitation of the entire community.
- 2.70. Play is crucial to a child’s development and green spaces are also excellent outdoor classrooms, providing learning experiences for children in urban locations<sup>16</sup>, and fulfil a vital role in fostering community links, acting as a democratic social forum, open to all.
- 2.71. Inadequate physical exercise is a significant contributor to poor health in the UK<sup>17</sup> while accessible, attractive green space has been shown to increase levels of informal exercise.<sup>18</sup> Opportunities for outdoor play support healthy lifestyles for children who are then more likely to become healthy adults. Green infrastructure also offers the opportunity for people to use cheap, healthy and sustainable modes of transport by creating accessible pedestrian and cycle routes linking homes, workplaces and services. A number of studies also show that simply viewing a natural scene can

---

<sup>15</sup> ODPM (2003) **Sustainable Communities: Building for the future.**

<sup>16</sup> Groundwork and Countryside Agency (2005) Op Cit.

<sup>17</sup> Department of Health (2004) **At Least Five a Week.**

<sup>18</sup> Forestry Commission (2005) **Economic Benefits of Accessible Green Spaces for Physical and Mental Health.**

rapidly lower anxiety and stress-related physiological symptoms<sup>19</sup> and is therefore likely to improve both mental and physical health.

### **Measuring the baseline**

- 2.72. In order to examine the spatial variation in socio-economic factors across the district, an analysis was made of the English Indices of Deprivation 2007 (ID 2007) which provide a relative ranking of areas across England according to their level of deprivation. An analysis was undertaken of the ID 2007 for the 131 Lower Super Output Areas (LSOAs)<sup>20</sup> that fall within North Hertfordshire or Stevenage. The ID 2007 covers seven dimensions of deprivation:
- Income;
  - Employment;
  - Health and Disability;
  - Education, Skills and Training;
  - Barriers to Housing and Services;
  - Living Environment;
  - Crime.
- 2.73. The Index of Multiple Deprivation (IMD) provides a composite view of deprivation across all these aspects and spatial variation in this has been described below and illustrated in **Figure 2.8**. Other aspects of deprivation in the district are shown at **Figures 2.9** and **2.10**. In addition the text highlights where individual dimensions of the IMD show particularly high levels of deprivation.
- 2.74. The ID 2007 dimension 'Living Environment' considers indicators relating to air quality, housing quality and road traffic accidents. Assessment of this topic was supplemented by the results of Defra's latest Local Environmental Quality Survey for local authority areas<sup>21</sup>.
- 2.75. For the strategic level overview data for Stevenage wards was also considered, to understand the broader picture/issues, and which GI associated with the future urban extensions to Stevenage may help to address.

## **Strategic**

### **Baseline**

- 2.76. North Hertfordshire has a population of 120,700, of whom 75% live in the four main settlements - the historic market towns of Hitchin, Baldock and Royston and the world's first Garden City, Letchworth – or in the Great Ashby estate, part of the urban area of Stevenage. Demographic change and Government policy have produced a requirement for a significant number of new homes and the cost of housing relative to local incomes is beyond the reach of many young adults, explaining the relatively low number of inhabitants in the 18-30 age bracket.

---

<sup>19</sup> Ulrich, R.S. (2002) **Health Benefits of Gardens in Hospitals.**

<sup>20</sup> Small geographies having a population of 1,000-3,000 people, allowing the identification of small pockets of deprivation.

<sup>21</sup> Defra/ENCAMS (2008) **Extended Local Environmental Quality Survey of England 2007/08.** Available from <http://www.defra.gov.uk/environment/localenv/reports/index.htm> .

- 2.77. Road and rail links in North Hertfordshire are generally good. There are direct rail services from a number of stations to Stevenage, Peterborough, Cambridge, King's Lynn, Hertford and London although no rail link to the west. The A1/A1(M) is the main north-south road through the district while the A505 provides good east-west links. There is no single dominant centre serving the economic needs of the district with Hitchin the largest retail destination and Letchworth, Hitchin and Royston important for employment. A significant proportion of the population commute to the surrounding large towns of Stevenage, Luton, Cambridge, Welwyn GC, Milton Keynes and to London for work and to shop. Car ownership and usage is high and traffic congestion a major concern for residents. While a range of bus services exist, they can be infrequent, especially in rural areas and rural shops and services have declined in recent years.
- 2.78. Examining quantitative data from the ID 2007, the general picture for North Hertfordshire, Stevenage and the adjacent area is a low level of multiple deprivation, as illustrated in **Figure 2.8**. None of the 131 LSOAs examined are amongst the 10% most deprived in England and only 1, within the Bedwell ward<sup>22</sup> in the west of Stevenage, is amongst the 20% most deprived. Moderate levels of multiple deprivation (20%-40% most deprived) are seen in a further 14 LSOAs within the built up areas of Stevenage (LSOAs in Bandley Hill, Bedwell, Martin's Wood, Old Town, Pin Green, Roebuck, Shephall wards), Letchworth (LSOAs in Letchworth South East, Letchworth South West, Letchworth Grange and Letchworth Wilbury wards) and Hitchin (within Hitchin Oughton ward). Concentrations of multiple deprivation are therefore an urban phenomenon in the district.
- 2.79. Disaggregating the ID 2007, reveals the following spatial patterns.
- Income Deprivation (**Figure 2.10**) – Only 3 of the 131 LSOAs are amongst the 20% most deprived in England, these being within the Bedwell, Hitchin Oughton and Letchworth South East wards;
  - Employment Deprivation – Again, only 3 LSOAs are amongst the 20% most deprived, these being within the Bedwell, Hitchin Oughton and Letchworth Grange wards;
  - Health and Disability Deprivation (**Figure 2.9**) – Only a single LSOA within Bedwell ward is amongst the 20% most deprived;
  - Education, Skills and Training Deprivation – This form of deprivation is more prevalent in the district with 14 LSOAs amongst the 20% most deprived. These lie within wards in Stevenage (Bedwell, Chells, Longmeadow, Old Town, Shephall), Letchworth (Letchworth South East, Letchworth South West) and Hitchin (Hitchin Oughton);
  - Barriers to Housing and Services – This is the most widespread form of deprivation in the District with 16 LSOAs amongst the 20% most deprived, of which 5 are amongst the 10% most deprived. The 10% most deprived LSOAs lie in the eastern part of Stevenage in Bandley Hill and Longmeadow wards and in

---

<sup>22</sup> Multiple LSOAs comprise one ward.

rural parts of North Hertfordshire to the east and north of Baldock, in Arbury, Ermine and Weston and Sandon wards;

- Living Environment Deprivation – A single LSOA within Hitchin Bearton ward in the centre of Hitchin is amongst the 20% most deprived with respect to living environment;
- Crime – 7 LSOAs are amongst the 20% most deprived in terms of crime, these being in the Bedwell, Pin Green, Roebuck and Shephall wards of Stevenage, together with a rural LSOA on the western edge of North Hertfordshire's Hoo ward and one in the Hitchin Priory ward of Hitchin.

2.80. The summary results for the Local Environmental Quality Survey 2007/08<sup>23</sup> for North Hertfordshire DC shows that residents consider there to be an absence or insignificant level of fly-tipping, fly-posting and graffiti but a problem with regard to litter and detritus. Looking in more detail at the quality of the district's landscaped areas, levels of litter are considered satisfactory but maintenance of landscaped areas is unsatisfactory. The corresponding survey results for Stevenage BC are the same as for North Hertfordshire both at a summary level and for their landscaped areas.

### **Key GI Issues/Opportunities**

- The general picture for North Hertfordshire, Stevenage and the adjacent area is a low level of multiple deprivation, although moderate levels are present in a number of areas of Stevenage, the eastern and western borders of Letchworth and the north west of Hitchin. Further detail is provided above;
- One of the relatively widespread dimensions of deprivation which has the potential to benefit from GI provision is Education, Skills and Training Deprivation. GI can provide opportunities for play (natural play or free play) which are vital to early development and function as an outdoor classroom. It can also provide opportunities for education through interpretation;
- Good design and management of GI to facilitate safety and surveillance may also be able to contribute to crime reduction in the identified pockets both directly by reducing opportunities for crime in public spaces and indirectly by helping to foster community pride and cohesion and supporting economic growth;
- In terms of the quality of existing landscaped areas in the district, there appears to be an opportunity to improve the standard of maintenance in both North Hertfordshire and Stevenage.

### **SNAP Area**

#### **Baseline**

2.81. None of the 40% most multiply deprived LSOAs in England lie within or border on the SNAP area. Looking in more detail at the constituent dimensions of multiple deprivation, five LSOAs in the SNAP area are amongst the 20% most deprived with respect to Barriers to Housing and Services. These LSOAs lie within the Weston

---

<sup>23</sup> Defra/ENCAMS (2008) Op Cit.

and Sandon; Graveley and Wymondley; Hitchwood; and Knebworth wards of North Hertfordshire; and the Symonds Green ward of Stevenage.

- 2.82. Those parts of Stevenage lying outside but near to the SNAP area contain one LSOA in Bedwell ward which is amongst the 20% most multiply deprived in England and a further eight LSOAs with moderate levels of multiple deprivation (20%-40% most deprived) located in Bandle Hill, Bedwell, Martin's Wood, Old Town, Pin Green, Roebuck, and Shephall wards.

***Key GI issues/opportunities***

- 2.83. Analysis of the ID 2007 reveals deprivation in or adjacent to the SNAP area with respect to Barriers to Housing and Services. The indicators used to calculate this dimension of deprivation cover travel distance to essential services such as food stores and GP surgeries, as well as housing-related measures. Thus, there are no particular deprivation issues in or directly adjacent to the SNAP area which GI provision could directly help to address. However the need for additional housing in the area presents an opportunity to deliver GI as part of the development package, including well placed green infrastructure linkages, considered from the very beginning of the development design process, and avoiding future issues in relation to health and other forms of deprivation.



# North Hertfordshire Green Infrastructure Plan

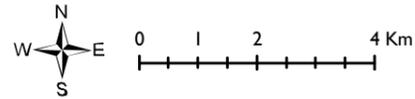
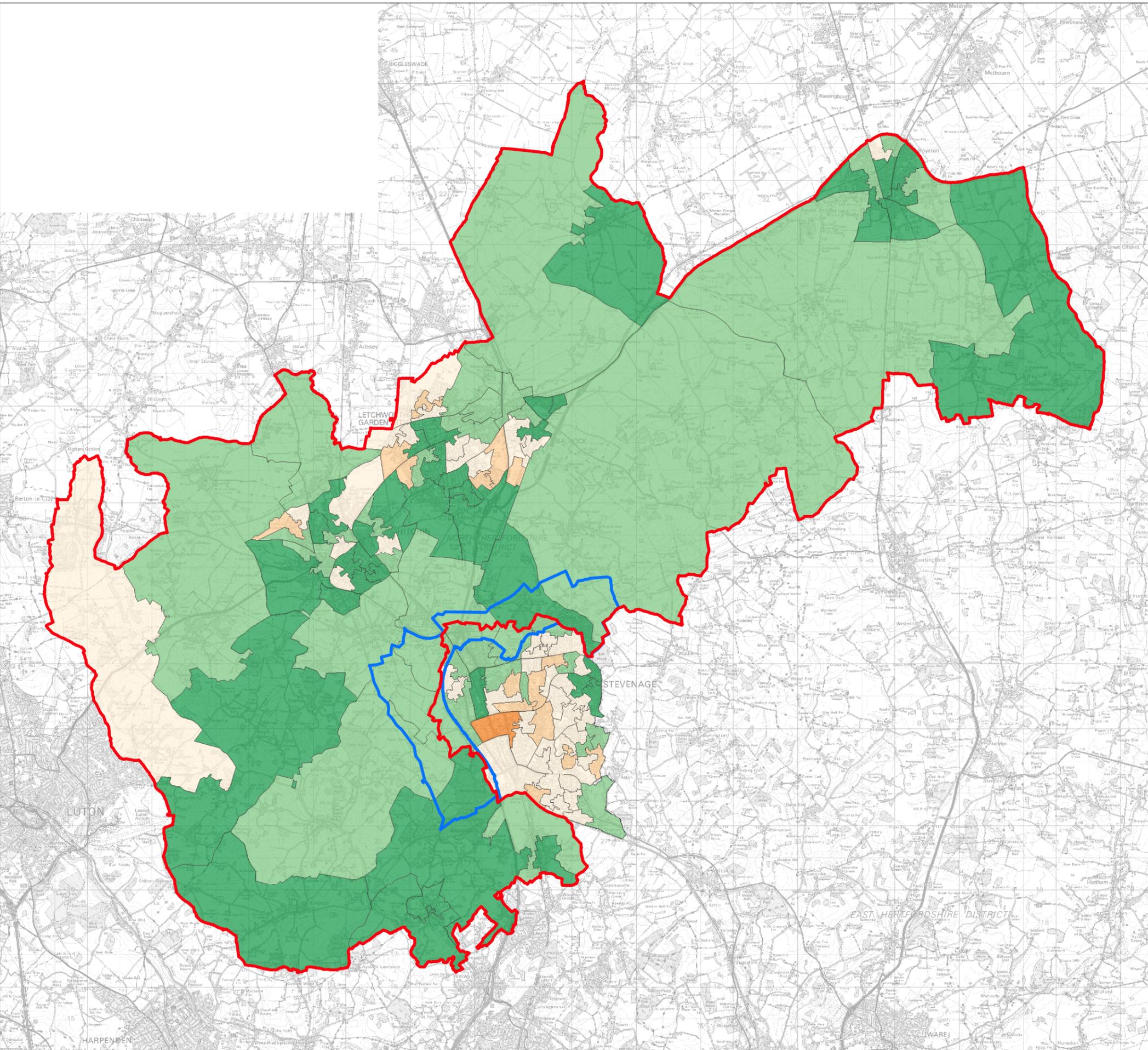
## Figure 2.8: Indices of Multiple Deprivation

**Key**

- North Hertfordshire District boundary
- Proposed SNAP boundary

Indices of Multiple Deprivation (IMD) percentile of England-wide rank

- 0 - 10 (Most deprived)
- 10 - 20
- 20 - 40
- 40 - 60
- 60 - 80
- 80 - 100 (Least deprived)



Source: ONS (2007)

Date: 04/08/2009  
Revision: A





# North Hertfordshire Green Infrastructure Plan

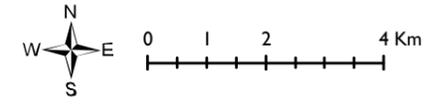
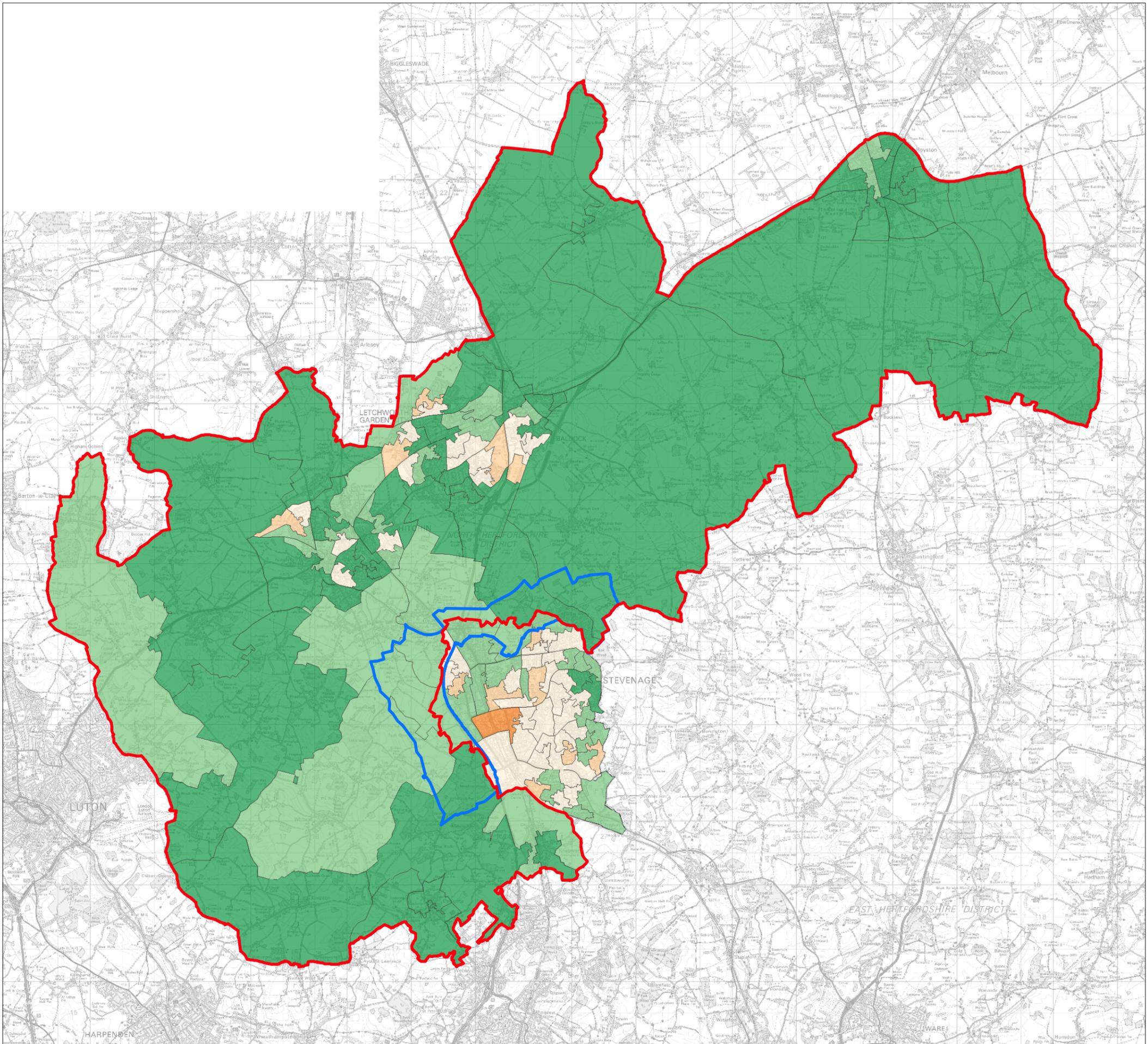
## Figure 2.9: Health Deprivation

**Key**

- North Hertfordshire District boundary
- Proposed SNAP boundary

Health deprivation percentile of England-wide rank

- 0 - 10 (Most deprived)
- 10 - 20
- 20 - 40
- 40 - 60
- 60 - 80
- 80 - 100 (Least deprived)



Source: ONS (2007)

Date: 04/08/2009  
Revision: A





# North Hertfordshire Green Infrastructure Plan

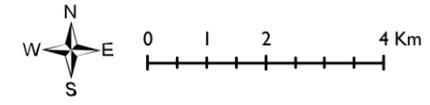
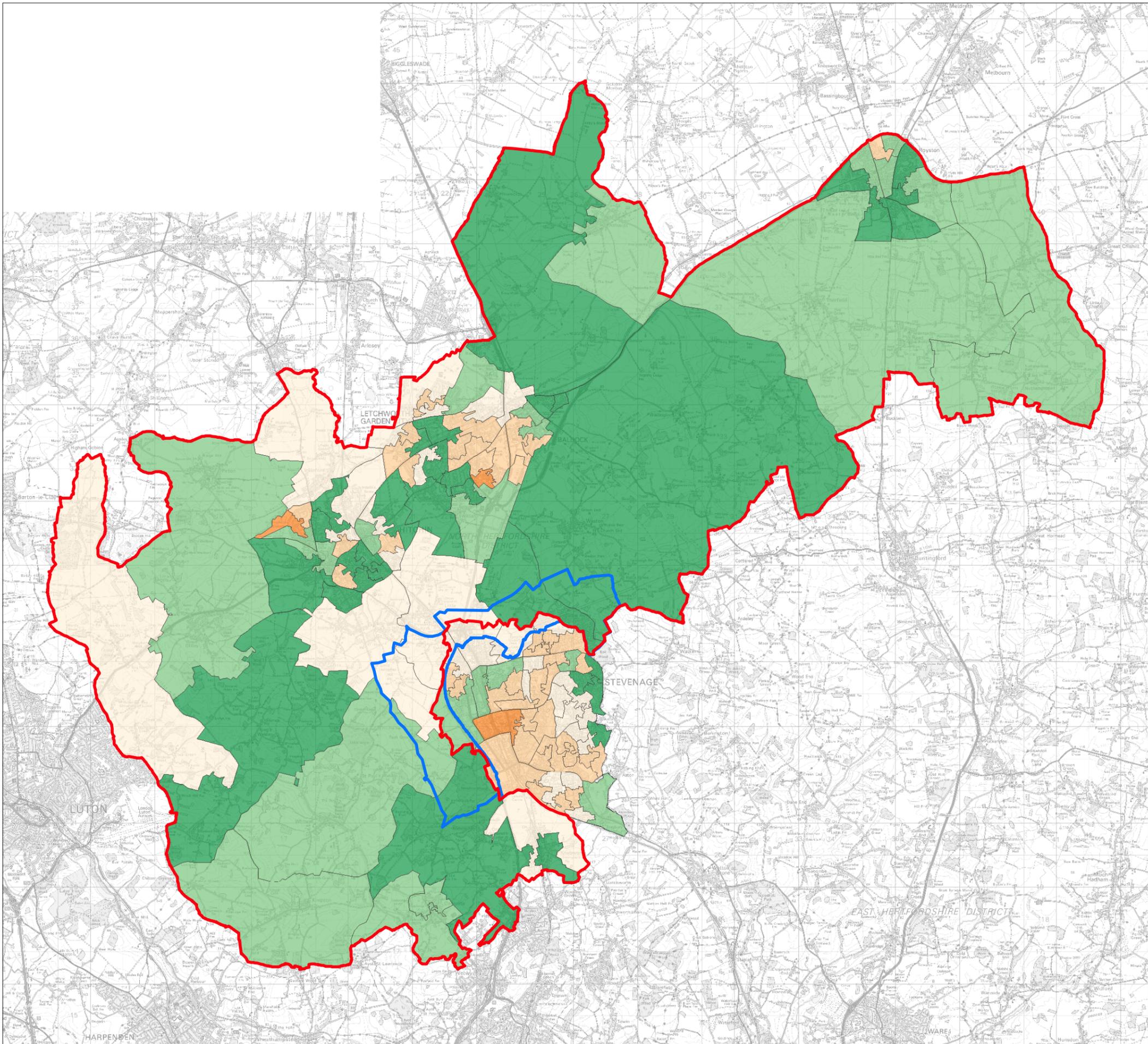
## Figure 2.10: Income Deprivation

**Key**

- North Hertfordshire District boundary
- Proposed SNAP boundary

Income deprivation percentile of England-wide rank

- 0 - 10 (Most deprived)
- 10 - 20
- 20 - 40
- 40 - 60
- 60 - 80
- 80 - 100 (Least deprived)



Source: ONS (2007)

Date: 04/08/2009  
Revision: A





### 3. GI DEFICIENCY ANALYSIS

---

- 3.1. This section sets out the deficiencies and needs in terms of accessible green infrastructure. Details of the basis for the quantitative and qualitative assessment are set out below. Consideration is given in turn to strategic scale deficiencies and those within the SNAP area, within this chapter.

#### SCOPE OF THE ANALYSIS

- 3.2. In order to understand how well North Hertfordshire is provided for in terms of accessible green infrastructure for informal recreation and access, this section sets out the findings of a **quantitative** analysis of provision. Accepted local and national standards for provision are used to provide a benchmark. Consideration is also given to future needs taking into account population trajectories to 2026 (with a general overview of the period to 2031).
- 3.3. The **quality** of accessible green infrastructure is also very important for ensuring local communities feel they are adequately provided for. It should be noted that it was not within the scope of this study to undertake a detailed audit of the quality of open spaces, this being the role of the PPG17 Open Space Assessments<sup>24,25</sup>. However, where data is available a consideration of the quality of green infrastructure, and how this affects green infrastructure needs and deficiencies, is presented towards the end of this section.
- 3.4. There are no clear standards in terms of provision of green infrastructure to perform functions aside from access for human recreation, such as alleviating flood risk and mitigating climate change. However, the preceding sections of this report have sought to identify where there are issues and opportunities relating to wider green infrastructure functions, which the Green Infrastructure Plan should respond to. These are reflected in the overarching principles and recommendations for multi-functional spaces set out in the proposed green infrastructure network and supporting projects at Chapters 4 & 6.

#### Quantitative assessment: methodology

- 3.5. Data on existing provision of publicly accessible open space has been described in **Section 2** of this report. In order to analyse whether the provision is sufficient or deficient in terms of public access, various standards have been used. These relate to **distance thresholds** which people should not have to exceed to access a site of a particular size, and the level of **provision of green infrastructure per head of population**, as summarised below.

#### *Green infrastructure data included in the ANGSt analysis*

- 3.6. For the purposes of the analysis of provision against ANGSt standards the following spaces over 1.0 ha in urban areas and over 2.0 ha elsewhere are included:
- Publicly accessible natural and semi-natural green space;

---

<sup>24</sup> Stevenage Borough Council (2006) **Open Space, Recreation and Sport Study, February 2006**

<sup>25</sup> NHDC/LUC (2009) **Green Space Standards Report**

- Green corridors;
  - Parks and gardens (town parks and gardens where these are accessible without entry fee);
  - Amenity green space;
  - Cemeteries and churchyards.
- 3.7. Spaces which are not readily accessible have been excluded from the ANGSt analysis (including allotments and outdoor sports facilities where payment or membership is required, and any other types of green infrastructure which are not publicly accessible, including areas of woodland and private sites designated for their nature conservation value, or which require prior arrangement and/or payment). Formal recreation spaces and spaces for children and young people are beyond the scope of this study although an analysis of provision of play space and sports facilities is provided in the Stevenage and North Hertfordshire PPG17 audits.
- 3.8. In terms of analysis of provision against local standards, slightly different green space typologies have been used (to reflect the way green space is classified by North Hertfordshire), and these are shown in **Tables 3.2** and **3.3**.

#### ***Scale of spaces and distance thresholds***

- 3.9. Four Tiers of accessible green infrastructure spaces have been defined, based on Natural England’s Accessible Natural Green Space or ANGSt Model<sup>26</sup>. The ANGSt model sets standards based on a review of the functions and values of natural green space as a provider of experience of nature to local communities. A range of green infrastructure types which provide public accessibility has been included within this analysis (detailed below). This is the approach taken in a range of other recent GI studies.
- 3.10. Natural England’s ANGSt approach is based on distance thresholds, and defines the maximum distance that any resident should have to travel to reach accessible natural or semi-natural green space. The four Tiers which have been defined are as follows:

**Table 3.1: Green infrastructure distance thresholds**

Green space tier name	Green space tier size	Distance threshold
Sub-regional provision	Sites or habitats over 500 ha	Within 10 km
County scale provision	Sites or habitats over 100 ha	Within 5 km
District scale provision	Sites or habitats over 20 ha	Within 2 km
Neighbourhood scale sites	Sites or habitats over 2 ha	Within 300 m

<sup>26</sup> English Nature (2003) **English Nature Report 526 ‘Accessible Natural Green Space Standards in Towns and Cities: A Review and Toolkit for Implementation’**

- 3.11. Application of these thresholds to North Hertfordshire District allows an understanding of the extent to which the population is served by green infrastructure of a range of scales.

**Provision per head of population**

- 3.12. It is also important to ensure that sufficient accessible green infrastructure is provided to serve the population in a given area. For example, a highly populated area would require a greater provision of accessible green infrastructure to ensure people have access to tranquil spaces compared to a sparsely populated area. Relevant standards for public green space per head of population are set out by North Hertfordshire DC and Stevenage BC (insofar as this relates to the SNAP area) in their PPG 17 green space studies as shown in **Table 3.2**:

**Table 3.2: Local authority standards for green space provision**

Type of green space	North Hertfordshire DC quantity standard <sup>27</sup> (ha per 1,000 population)		Stevenage BC quantity standard <sup>28</sup> (ha per 1,000 population)
	Towns	Rural areas	
Town parks and gardens (note that for North Hertfordshire District this is part of an aggregated quantity standard, which also includes recreation grounds and amenity green space).	0.77	2.49	0.73
Amenity green space			1.10
Natural and semi-natural green space	1.47	6.37	1.78
Cemeteries and churchyards	No standard set		No local standard set

**ANGSt analysis of existing green infrastructure provision**

- 3.13. **Figures 3.1- 3.4** show the green infrastructure distance thresholds (Neighbourhood to Sub-regional) as applied to the accessible natural and semi-natural green space in the district. In each figure, the distance threshold (i.e. the area served by the accessible green spaces) is shown in yellow. Note that the mapped catchment area for any particular tier in the hierarchy (shown in **Table 3.1**) also includes the catchments of any sites higher up the hierarchy. For instance, **Figure 3.4** showing the areas within the catchment of a Neighbourhood level site illustrates a 300 m buffer area around Neighbourhood, District, County and Sub-regional sites since they are all capable of performing a Neighbourhood function.

<sup>27</sup> NHDC/LUC (2009) Op Cit

<sup>28</sup> SBC (2006) Op Cit

### ***Sub-regional scale (sites over 500 ha)***

- 3.14. Sub-regional green infrastructure is defined in Natural England's ANGSt guidance as sites over 500 hectares in size with a distance threshold of 10km. There are no sites of this scale which overlap the district boundary, and none within 10km.

### ***County scale (sites over 100 ha)***

- 3.15. County scale green infrastructure is defined in Natural England's ANGSt guidance as sites over 100 hectares in size with a distance threshold of 5 km. Key sites include:
- Knebworth Country Park, which lies just outside of the SNAP area, within North Hertfordshire. All of Stevenage and most of the SNAP area fall within the 5 km catchment of this county scale site. The Country Park's position to the west of the A1(M) does, however, reduce its accessibility from Stevenage except for those travelling by car. The significant entry fees to the Park also represent a potential barrier to its widespread use;
  - Therfield Heath SSSI, a 169 hectare chalk grassland site to the western edge of Royston. The catchment area for the site includes much of the north-eastern part of the district but it may be sensitive to increased recreational use.
- 3.16. The western half of the district is largely deficient in County scale GI provision.

### ***District scale (sites over 20 ha)***

- 3.17. District scale green infrastructure is defined in Natural England's ANGSt guidance as sites over 20 hectares in size with a distance threshold of 2km. There are four District scale sites within the district boundary which should be considered in addition to the County level sites listed above:
- Norton Common, the main open space just north of the railway line in Letchworth;
  - A linear site of registered Common land at Lower Grope, just north of Ickleford and Hitchin;
  - Oughtonhead Common, along the River Oughton to the north west of Hitchin; and
  - Lilley Hoo, a linear site to the North east of Luton.
- 3.18. The principal North Hertfordshire towns are relatively well provided for in terms of District level provision, with the exception of Baldock, which is largely deficient.
- 3.19. Gustard Wood, which lies outside the district, south west of Stevenage, is a District level site whose catchment includes the Blackmore end part of the study area. Sites at Stevenage including Fairlands Valley Park and an area to the north of Luton also include parts of the study area in their District level catchment boundary.

### **Neighbourhood scale (sites over 2ha)**

- 3.20. In addition to larger scale sites, people need access to sites close to where they live for more localised recreation. It is considered by ANGSt that people should have access to a site of at least 2 ha within 300 m of their homes.
- 3.21. A large number of sites provide this local function so they have not been identified individually. In terms of the broad pattern of neighbourhood level provision, **Figure 3.4** shows that the southern and northern edges of Stevenage are relatively well served but that many gaps in local level provision exist within the district.

### **SNAP area**

- 3.22. Based on the sites identified above, it is apparent that the western part of the SNAP area is well provided for in terms of County level green space and that limited neighbourhood level provision is available from existing Stevenage sites in the northeast (e.g. Lyndale; Buckthorne Avenue; Wheatland B and Kings Walderns Rise) and northwest (e.g. Park Close; York Road) of Stevenage Borough. Sub-regional level provision is, however, completely absent from the SNAP area and only a small part of SNAP west lies within the catchment for District level provision. The small catchment size of Neighbourhood level sites mean that these will need to be provided alongside development within the SNAP area itself.

### **Quantity of green infrastructure per head of population (2009)**

- 3.23. In order to understand how well the population of the district is served in terms of provision per head of population (which is often used as a measure to underpin standards) an analysis of accessible green infrastructure measured against the population of each ward has been undertaken. These data are illustrated (per 1000 population by ward) in **Figure 3.5**.
- 3.24. **Figure 3.5** shows the distribution of accessible green space in North Hertfordshire District. The 'Rural East' area of the District, east of the A1(M), has the highest amount of accessible green space per 1000 population overall, with the highest figure south of Royston. The rural areas generally, particularly south west of Stevenage and east of Luton also have higher figures. The lowest figures per 1000 population are in the west/north areas of Letchworth Garden City, the eastern part of Baldock, eastern wards of Stevenage, and south western tip of the district, an area which includes Kimpton.

### **Provision measured against local standards**

- 3.25. The North Hertfordshire Green Space Standards Report has aggregated a number of the typologies to create combined minimum standards for future provision. The standards are based on the current average level of provision across urban (the North Hertfordshire towns) and rural analysis areas (rural west and rural east, split by the A1[M]), protecting the existing level of green space provision as a minimum as the population grows. As the level of provision is characteristically quite different in the towns and rural areas, a distinction has been made in the standards. Current performance (2009) against the standards for accessible green space typologies is shown in **Table 3.3** overleaf. As a result of the standards being set at the existing average level of provision across the four towns and then across the two rural

analysis areas, when existing provision is measured against the standard, it shows which areas are above and below this average. This does not necessarily mean an area surplus in relation to quantity. Quantitative provision needs to be considered in combination with accessibility.

**Table 3.3: Existing green space provision: North Herts**

Green space type	Amount per 1000 population (ha)		Areas above and below standard in 2009 - towns	Areas above and below standard in 2009 – rural areas
	Towns	Rural areas		
Recreational and amenity green space (comprising of typologies A: Town Parks and Gardens, B: Recreation grounds and C: Amenity green space)	0.77	2.49	<b>Above:</b> Hitchin (by 6.79ha) <b>Below:</b> Baldock (by 1.52ha) Letchworth (by 0.14ha) Royston (-5.13ha)	<b>Above:</b> Rural east (by 26.10ha) <b>Below:</b> Rural west (by 26.10ha)
Natural and semi natural green space (typology D)	1.47	6.37	<b>Above:</b> Baldock (by 16.51 ha) Hitchin (by 19.68 ha) <b>Below:</b> Letchworth (by 14.20ha) Royston (by 21.99ha)	<b>Above:</b> Rural east (by 58.91ha) <b>Below:</b> Rural west (by 58.91ha)

- 3.26. It should be noted that no local standards have been set for typology E: Green corridors or typology G: Cemeteries and churchyards, within the North Hertfordshire Green Space Standards Report. Quantity standards will have to be read in conjunction with accessibility standards for future levels of green space provision to be determined in relation to individual developments.

**Quantity of green infrastructure per head of population (2026)**

- 3.27. In order to consider the picture in 2026 following the growth of North Hertfordshire and the SNAP area, the same analysis has been run using projected population figures. These are based on housing provisions data from North Hertfordshire District Council, and assumptions on average household size at 2021

and 2026, also sourced from NHDC. Data used in this analysis is summarised in the table below.

**Table 3.4: Population growth estimates based on housing provisions**

<b>SNAP expansion by:</b>	<b>2021</b>	<b>2026</b>	<b>2031</b>
No of dwellings	10,832	13,732	16,632
Estimated population	25,455	32,270	39,085
<b>Remainder of North Hertfordshire, expansion by:</b>	<b>2021</b>	<b>2026</b>	<b>2031</b>
No of dwellings	1,493	3,043	4,593
Estimated population	3,434	6,999	10,564

Figures in table 3.4 derived by NHDC for Pre submission draft Core Strategy. Assumptions concerning estimated population have been based on 2.35 persons per dwelling in the SNAP area and 2.3 persons per dwelling elsewhere in North Hertfordshire District. Note that these are cumulative figures.

- 3.28. It can be seen from **Table 3.4** that during 2009-2021, the population of the urban extensions around Stevenage in North Hertfordshire is estimated to increase by 25,455 people, and by another 6,815 to 2026. If population in the SNAP Area in 2026 is as estimated 32,270 people, based on the urban standard of 0.77ha/1000, and to achieve the existing level of towns green space provision for future population within the SNAP area, this will require the following: a total provision of 24.85ha of recreational and amenity green space (the existing level of provision within the SNAP Area may be able to contribute to this total) and a total provision of 47.45ha of natural and semi-natural green space, based on the urban standard of 1.47ha/1000 (the existing level of provision within the SNAP Area or within the recommended catchments may be able to contribute to this total). Extrapolating these figures for the SNAP area to 2031 would suggest a need for a further 5.25ha of recreational and amenity green space between 2026-31 and a further 10ha of natural and semi natural green space.
- 3.29. Application of the North Hertfordshire Green Space Standards implies the requirement for the following across the district, to 2026, in order to maintain the existing level of provision enjoyed by the towns and rural areas of North Hertfordshire District:
- An additional 4.37ha of recreational and amenity green space (typologies A: Town parks and gardens, B: Recreation grounds and C: Amenity green space) within the towns and an additional 1.63ha within the rural areas; and

- An additional 8.36ha of natural and semi natural green space (typology D) to serve the towns and 4.17ha to serve the rural areas<sup>29</sup>.

### **Beyond a quantitative assessment of provision**

- 3.30. An analysis of quantitative provision provides a broad-brush indication of where provision standards are exceeded or not met. However, as recognised in Government guidance on undertaking open space assessments, a range of other factors such as quality of open spaces, safety, accessibility and provision of facilities all contribute to public perceptions of deficiencies and needs.
- 3.31. Guidance on open space assessments identifies the need to undertake thorough and inclusive public consultation to understand aspects of open spaces that communities feel are satisfactory or would like to see improved, as well as detailed site quality audits. This level of analysis goes beyond the scope of the Green Infrastructure Plan. North Hertfordshire District Council and Stevenage Borough Council have produced separate PPG17-compliant studies and the coverage and key findings of these are summarised in the boxes below, with particular emphasis on qualitative findings.

#### **Stevenage Borough Council Open Space, Recreation and Sport Study (PPG17 study)**

To provide a robust baseline for planning of open space and recreation and sport facilities, the Borough commissioned this study which audited existing provision; assessed local demand; recommended provision standards for each type of open space; assessed the value of individual sites; and identified geographical areas where open space of each type requires protection, enhancement, relocation or new provision. Key findings relevant to the Green Infrastructure Plan were as follows:

##### *Parks and gardens*

Quantity standard set as 0.73 ha per 1,000 population. Accessibility standard set as 15 minutes drive to Fairlands Valley Park; 10 minutes' walk (0.8 km) for all other parks and gardens. Based on these standards, there was no borough-wide deficiency although looking at analysis areas within the borough, there was some deficiency in local parks and gardens around the edge of the authority area.

97% of residents felt that parks and gardens were important and this was the most frequently used type of open space examined. 69% felt existing provision was about right and 30% that there was too little. Parks and gardens were felt to be over-dominated by playing fields, leaving insufficient room for informal recreation. Just over half of those consulted were satisfied or very satisfied with maintenance and management. When assessed against Green Flag quality criteria, all parks and gardens scored over 75%.

##### *Natural and semi-natural open space*

Quantity standard set as 1.78 ha per 1,000 population. Accessibility standard set as 5 minutes' walk (0.4 km). There was no quantitative borough-wide deficiency although looking at individual analysis areas, parts of St Nicholas fell below the quantity standard and parts of Bedwell, St Nicholas and Old Stevenage were outside of the accessibility catchment. Site access rated average to poor.

<sup>29</sup> Figures sourced from the North Hertfordshire Green Space Standards Report, which calculated provision as far as 2026.

Consultation revealed mixed levels of usage for natural and semi-natural open space. Looking at quality factors, dissatisfaction was greatest with respect to lighting and litter bins/level of littering. The quality of sites was rated as average to good by site assessments.

#### *Amenity green space*

Quantity standard set as 1.1 ha per 1,000 population. Accessibility standard set as 5 minutes' walk (0.4 km). There was slight borough-wide deficiency and quantity deficiencies in the areas of St Nicolas, Chells, Shephall and Broadwater. There were no accessibility deficiencies with accessibility catchments showing significant overlap.

During consultation, 85% of respondents felt that amenity green space was important, with 53% believing the quantity to be about right and 38% feeling there was not enough. Concern was expressed that small pockets of amenity green space in built up areas might be developed on. Most people travelled very short distances and on foot to access this type of green space. Few problem factors were felt to exist for these sites by consultees. The formal assessment of sites during the study rated overall quality in the borough as average to good.

#### *Cemeteries and churchyards*

No quantity or accessibility standards were set. Only three publicly accessible churchyards or cemeteries existed. They were assessed as being of good quality, accessibility and usage and were well valued.

### **North Hertfordshire Green Space Standards**

There is a considerable amount of natural and semi natural green space in North Hertfordshire with some significant and strategic sites such as Norton Common, Therfield Common and Weston Hills.

In June 2009, LUC was commissioned to prepare standards for the provision of green space in North Herts, to inform green infrastructure planning. These standards have been developed based on previous green space audit and consultation work prepared by NHDC. The analysis and provision standards developed by LUC focus on quantity and accessibility of green space within North Herts. The objective of the work was to analyse existing green space provision, define quantity and accessibility standards for green space, apply the standards to the district, and provide recommendations on how these standards should influence future green space provision/planning.

The district was divided into sub-areas for the purpose of the analysis, to allow conclusions to be drawn at a local level. The sub-areas are: Hitchin, Letchworth, Royston and Baldock (the four main towns in North Herts), plus the rural area which was divided into two sub-areas, with the M1 corridor acting as the boundary between the eastern and western rural sub-areas.

Baseline research indicated that existing district-wide provision of all types of accessible green space is 8.52ha per 1000 population. The existing provision per 1000 population was also calculated for each green space typology. Analysis was also undertaken on the existence of multi-functional sites within the district, and it was found that of the 575 sites in the district, approximately 42 sites were truly multi-functional at present.

In order to inform green space provision standards for North Herts, a bench-marking exercise was undertaken, which included review of nationally recognised open space standards, and relevant standards developed by neighbouring or comparable local authorities. A local needs review also informed the development of open space standards, utilising public consultation exercises which were completed by NHDC. The consultation findings revealed community perspectives on priorities in terms of types of green space, and also journey times that residents felt were suitable in relation to access to each type of green space.

North Hertfordshire District Council is currently developing quality standards in respect of green space provision.

- 3.32. It is also clear that there are a number of linear barriers which may hinder access (particularly by non-car modes) to green infrastructure sites. The most obvious of these is the A1(M) which runs north-south through the centre of the district and hampers access westwards from Stevenage (e.g. to Knebworth Country Park and the western part of the SNAP area) and eastwards from Letchworth Garden City. Other transport links creating potential barriers to green space access include the A602 which effectively cuts the SNAP area in half and the Stevenage to Hitchin rail link which also hinders eastwards movement from most of Stevenage urban area.

### **Location-specific need for green infrastructure functions**

- 3.33. The social demand for accessible green space is just one type of green infrastructure need. There is also a need for other green infrastructure functions across the district, although at present no recognised method exists for quantifying these needs. It is possible to identify some broad spatial trends in terms of the relative need for green infrastructure functions across the district. For example, by referring to **Figure 2.7**, it is clear that there will be more of a need for flood alleviation functions to be incorporated in green infrastructure where it is located within or upstream of flood plain areas.
- 3.34. Within the wider district, Hitchin is the urban area where flood risk tends to be highest, and therefore where flood management functions should be prioritised in GI delivery. Flood risk does not appear to be a major problem within the SNAP area, except along the Langley Bottom Valley. As noted in Chapter 2, it would be beneficial to provide appropriate types of informal green space along Pix Brook, the River Oughton and the River Purwell to perform flood risk mitigation, as detailed in the SFRA.
- 3.35. In terms of socio-economic functions of green infrastructure, the characterisation work has revealed similar spatial priorities for GI which contributes to health, education and community cohesion. The parts of the district which experience highest levels of socio-economic deprivation and health are pockets of Hitchin, Baldock and Letchworth, in addition to various parts of urban Stevenage (particularly the western edge) within Stevenage Borough. These areas should be targeted for physical improvements to green spaces to encourage healthy recreation and investment to improve perceptions of safety in local parks, to encourage local people to use them. In addition, schemes encouraging healthy recreation, exercise and skills training may also focus on these locations. Identification of the priorities for investment should be informed by local community consultation.

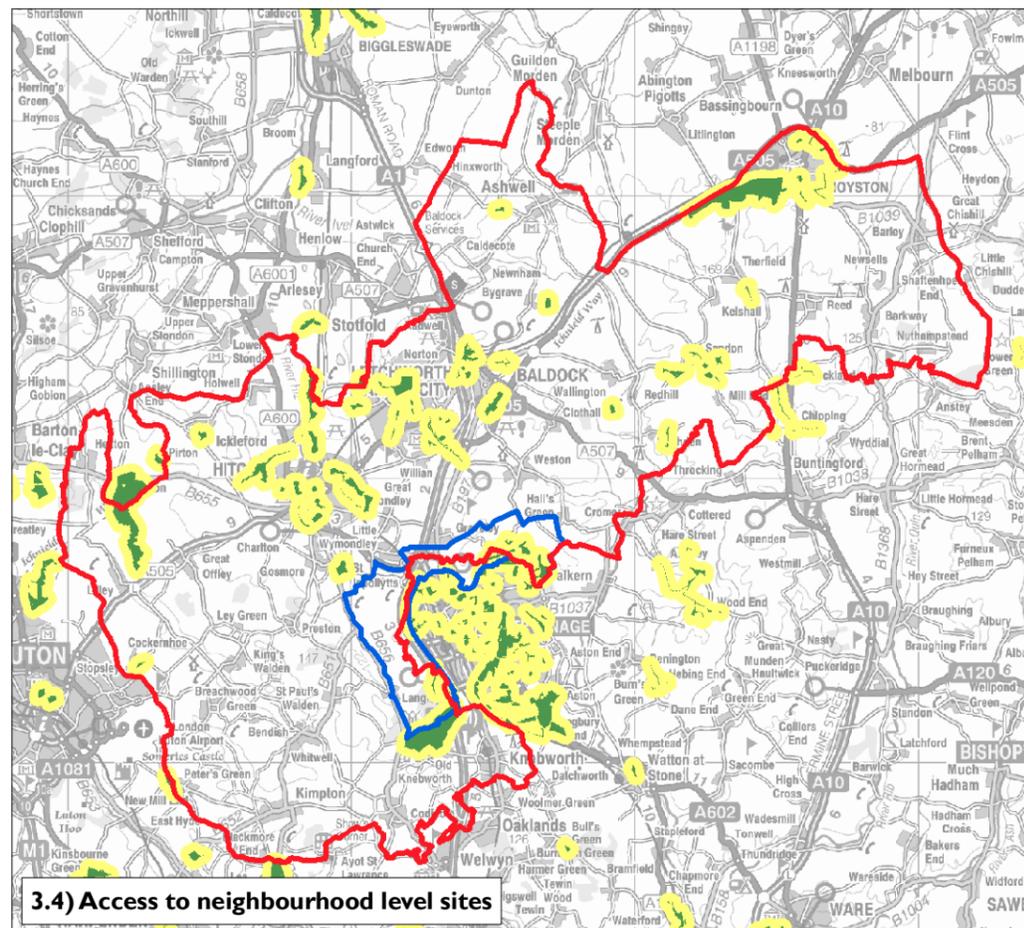
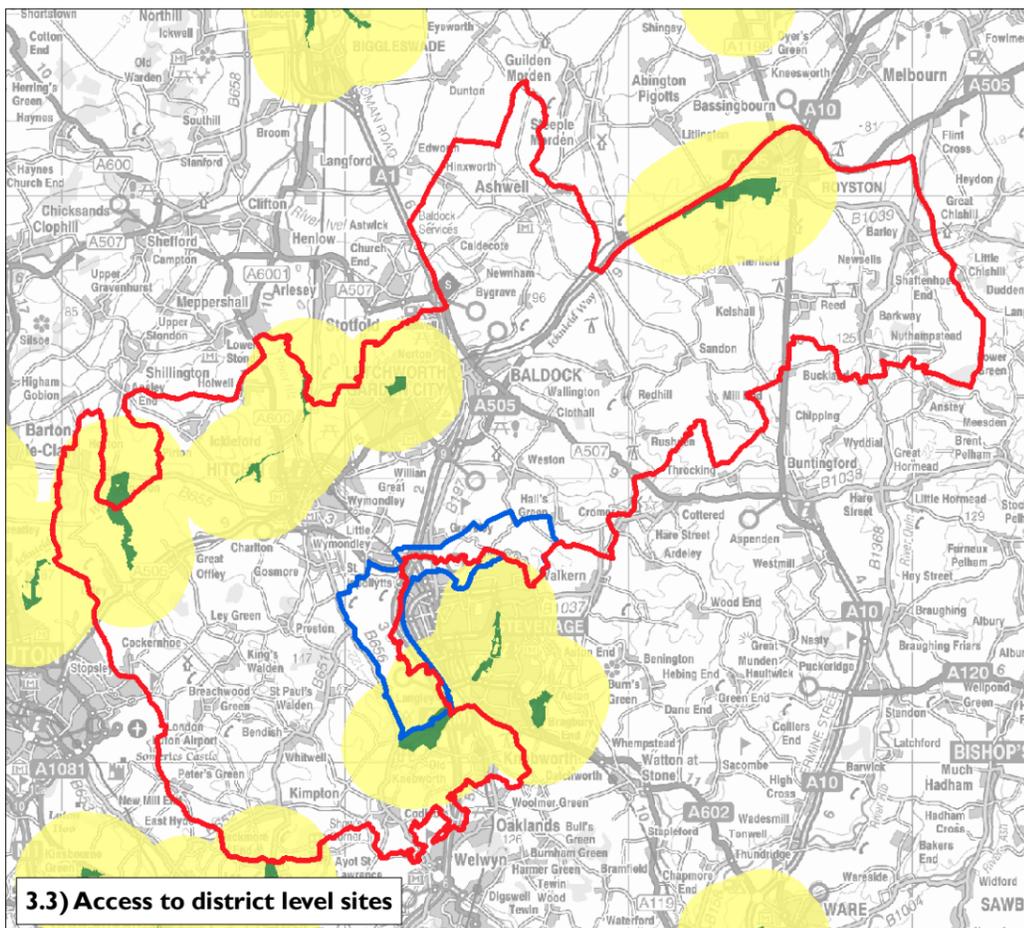
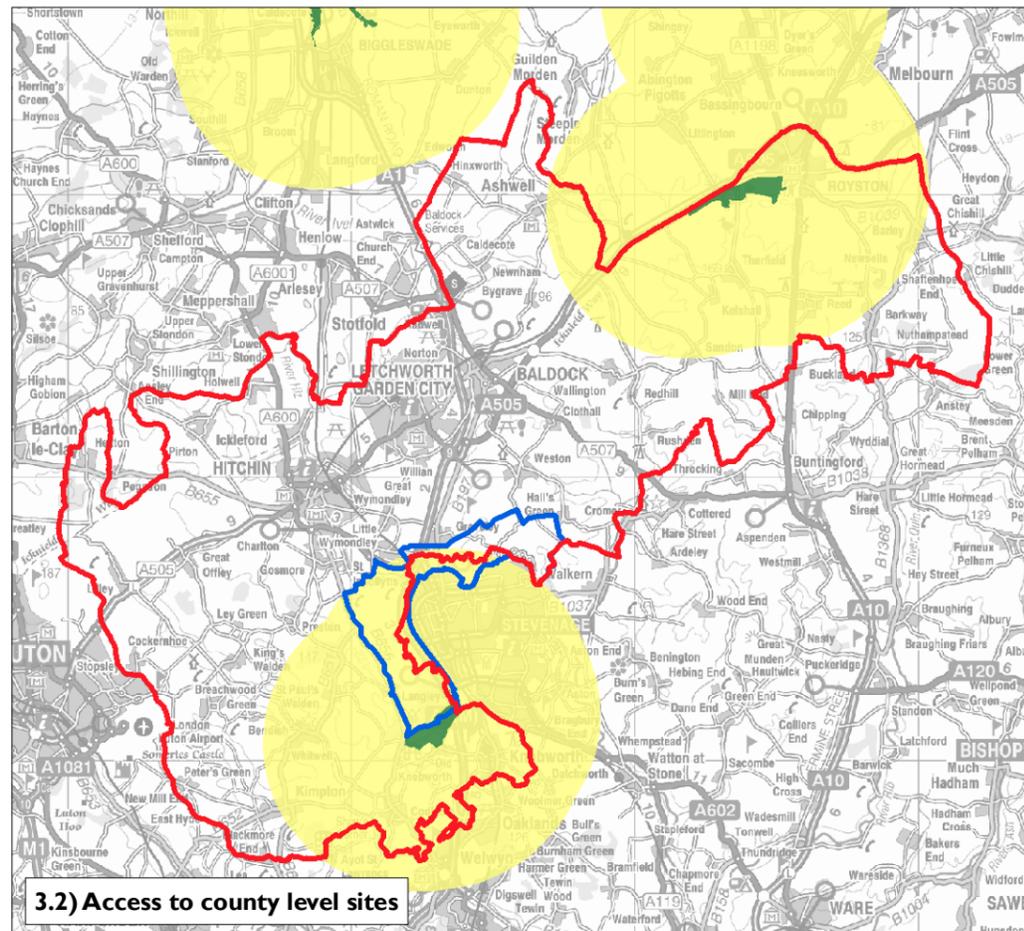
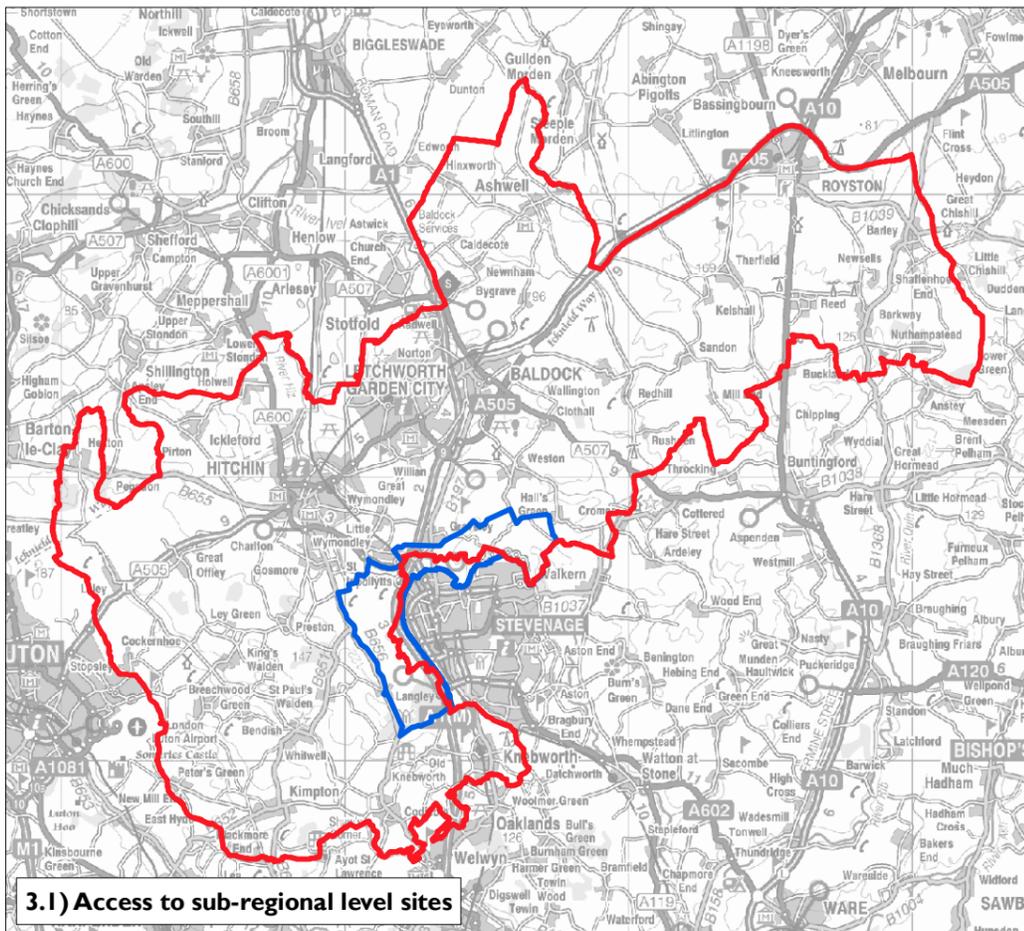
### **Summary points to inform the Green Infrastructure Plan:**

- There is a need to connect smaller scale spaces to the wider network of green spaces and such links to wider areas of green infrastructure should be promoted;
- Improve sustainable transport connections to existing green spaces where these currently favour car users (e.g. Knebworth Country Park,

Fairlands Valley Park) and to ensure new green space is accessible by sustainable modes. This may require new bridges or underpasses to cross major transport corridors;

- Ensure all new development is served by a range of scales of green infrastructure as per ANGSt distance thresholds and meeting defined quantity standards per 1,000 population;
- Green infrastructure investment should incorporate flood management functions, particularly in areas of high flood risk such as Hitchin and along major river corridors;
- Improvements to parks and local green spaces in areas suffering from moderate to high levels of socio-economic deprivation should engage with the local community to define what is required to encourage healthier lifestyles and maximise the value of local parks.





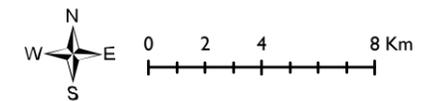
# North Hertfordshire Green Infrastructure Plan

Figure 3.1 - 3.4: Accessible Natural Green Space Catchments

## Key

- North Hertfordshire District boundary
- Proposed SNAP boundary
- Accessible green space\*
  - Neighbourhood sites: 1ha - 20ha (urban)
  - 2ha - 20ha (rural)
  - District sites: 20ha - 100ha
  - County sites: 100ha - 500ha
  - Sub-regional sites: Over 500ha
- Accessible green space catchments
  - Neighbourhood sites: 300m
  - District sites: 2km
  - County sites: 5km
  - Sub-regional sites: 10km

\* Accessible natural green space is comprised of the following datasets:  
 A. Town parks and gardens  
 C. Amenity green space  
 D. Natural and semi-natural greenspace  
 E. Green corridors  
 G. Cemeteries and Churchyards  
 Accessible green space in Stevenage  
 Open access land  
 Accessible National Trust land  
 Country Parks



Source: North Hertfordshire District Council, Stevenage Borough Council, Natural England

Date: 25/08/2009  
 Revision: A





# North Hertfordshire Green Infrastructure Plan

Figure 3.5: Accessible Green Space per 1000 Population (2009)

**Key**

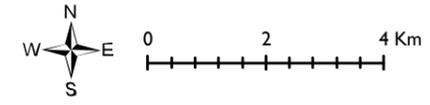
-  North Hertfordshire District boundary
-  Proposed SNAP boundary

Accessible Green Space\* (ha) per 1000 Population (2009\*\*)

-  0.40 - 2.00
-  2.01 - 5.00
-  5.01 - 10.00
-  10.01 - 15.00
-  15.01 - 40.00
-  40.01 - 70.00

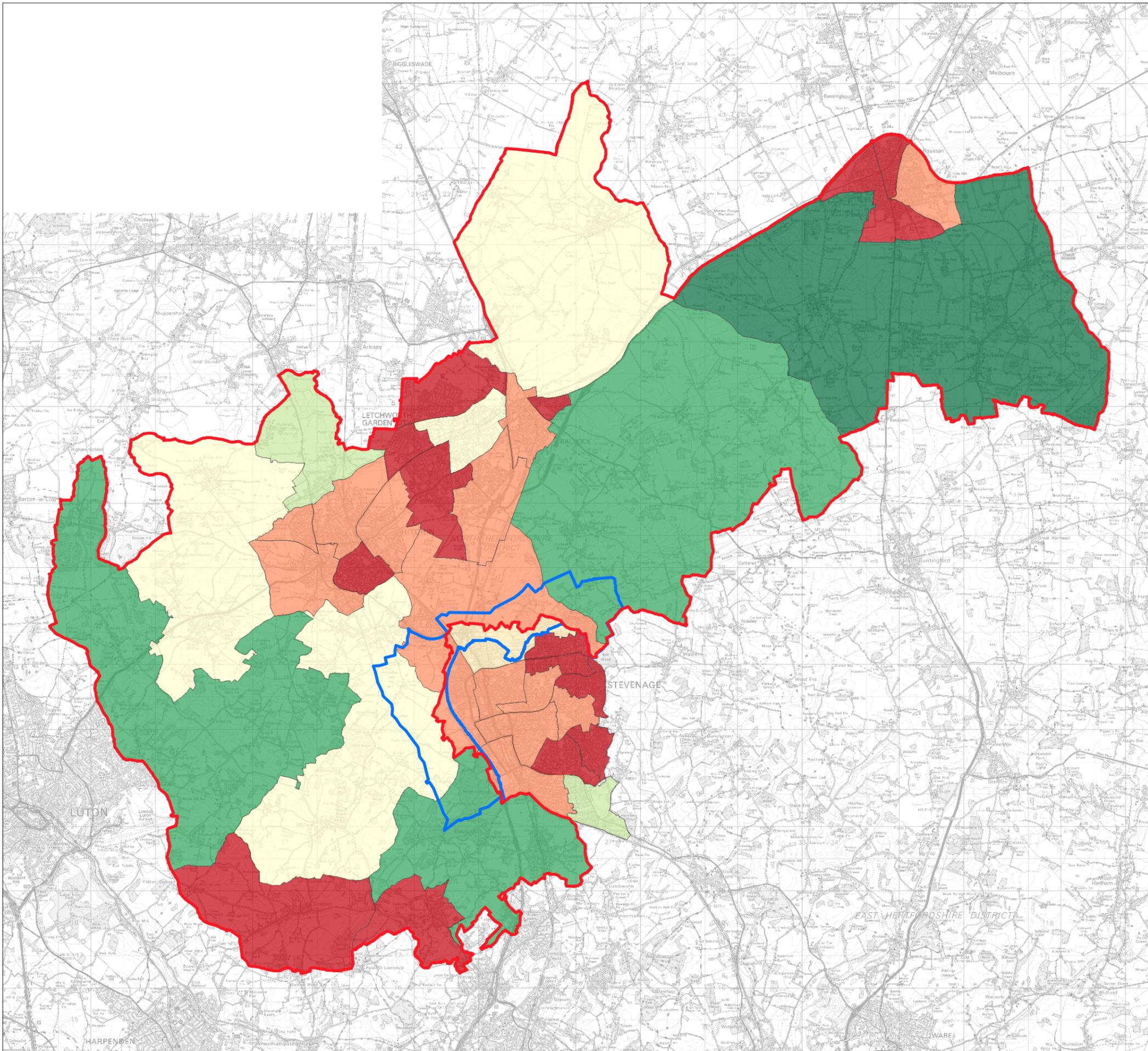
\* Accessible green space is comprised of the following datasets:  
 A. Town parks and gardens  
 C. Amenity green space  
 D. Natural and semi-natural greenspace  
 E. Green corridors  
 G. Cemeteries and Churchyards  
 Accessible green space in Stevenage  
 Open access land  
 Accessible National Trust land  
 Country Parks

\*\* In order to estimate the 2009 population by ward the Mid 2007 ONS figures have been used as the baseline figures and a % added to project these forward to provide very indicative 2009 population figures. This is an approximate estimate based on the County Council model for population projections which between 2007 and 2009 projected a 1.3411% population increase in N. Herts.



Source: ONS, North Herts

Date: 04/08/2009  
 Revision: A





## 4. A GREEN INFRASTRUCTURE HIERARCHY

---

### THE GREEN INFRASTRUCTURE VISION FOR NORTH HERTFORDSHIRE

- 4.1. A landscape led vision for green infrastructure in North Hertfordshire to 2031 and beyond is provided below.

#### Vision

*The rural North Hertfordshire landscape of farmland, sculpted chalk landforms, minor river valleys and oak/hornbeam woodland, is conserved and managed to form a positive setting for the main areas of settlement within the district, as well as to conserve their distinctiveness and sense of separation.*

*Well designed, contained urban extensions conserve key views and connect visually and physically to the wider landscape and the adjacent townscape, as well as conserving and respecting existing landscape and environmental assets.*

*New urban extensions respect and reflect the rich and varied built heritage of ancient market towns and the Howardian principles embodied in the world's first Garden City. At the same time growth and change is forward looking, incorporating green building technologies to contribute to landscape, biodiversity, climate change adaptation and carbon efficiency.*

*A multi functional and well connected countryside, recognising the importance of the whole landscape, and facilitating access to the landscape and to nature for a range of users and their needs. Green infrastructure provides for access without the need for the car.*

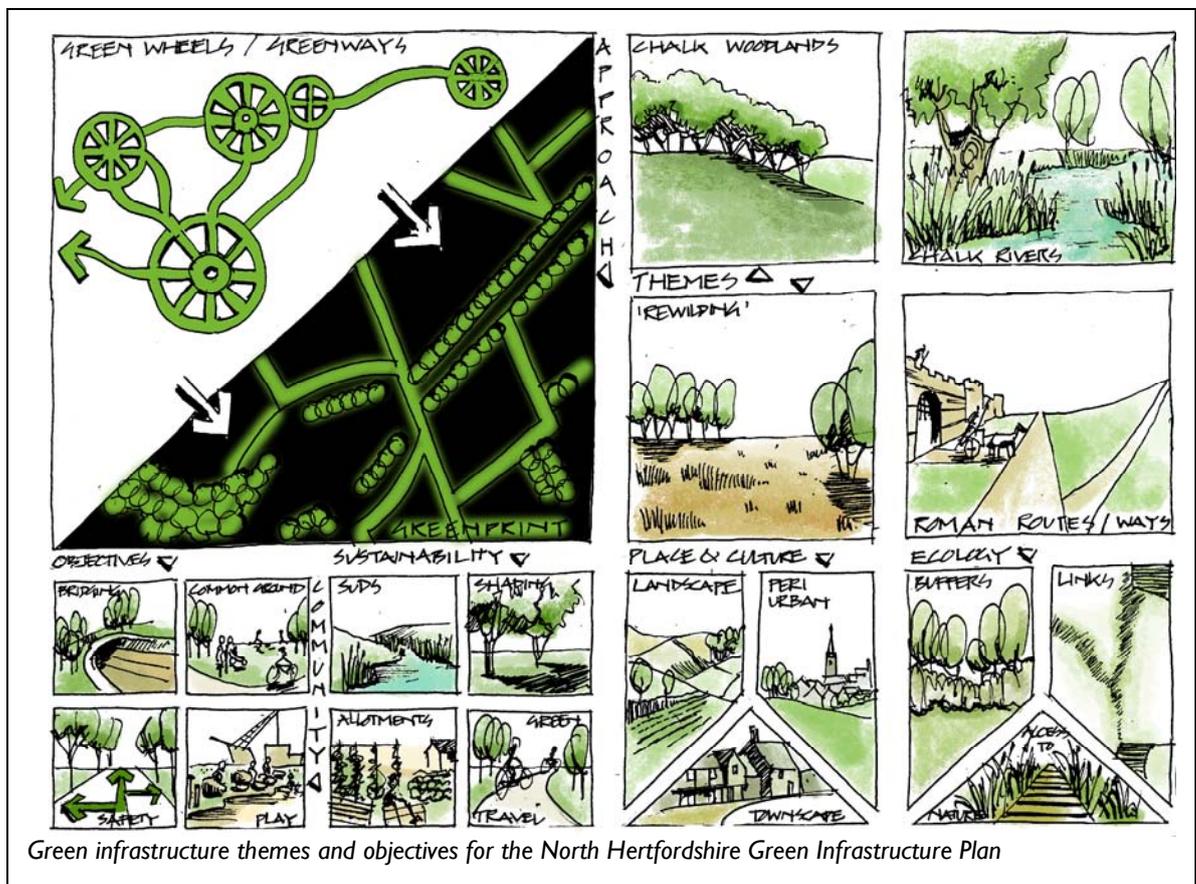
*Provision of quality of life and place through well planned, considered and managed green infrastructure which makes reference to wider landscape character and contributes to healthy, sustainable communities. A place where sustainable community needs are met on the doorstep, with opportunities for local food production, for informal and active recreation for all ages.*

- 4.2. The following section sets out the green infrastructure hierarchy for North Hertfordshire and the SNAP Area. It is supported by the proposed green infrastructure network maps shown at **Figures 4.1** and **4.2**. The planning of the green infrastructure hierarchy has used the information contained in the environmental characterisation and deficiency analysis, responding to and developing the key opportunities identified. The proposed green infrastructure network was refined through **stakeholder consultation undertaken in October 2008**. The hierarchy develops a strategic and local level series of green and blue links and enhancements to existing links to tie into the existing high level network of long distance routes such as the Icknield Way, Hertfordshire Way and Chiltern Way. Thus two types of links have been defined within the proposed network:

- Level 1 links – Strategic or long distance/sub regional links;
  - Level 2 links – Local level connections.
- 4.3. The two tiers or spatial scales of the GI hierarchy have employed slightly different approaches. The district wide tier develops a ‘green wheel’ or greenway type approach, building on the successful greenway implemented in Letchworth Garden City, identifying opportunities for radial links and connectors or ‘spokes’ (green and blue links) across the district. The proposals for the SNAP area and for the four North Hertfordshire Towns set out an outline ‘greenprint’ – a framework of spatial possibilities so that GI can be considered in advance of development.
- 4.4. Review of the baseline information as part of the desk study exercise and confirmation through field survey identified a number of environmental and cultural themes and supporting spatial and technical concepts for a green infrastructure network. This formed a basis for identifying linkages and projects which respond to environmental character and sense of place. These ideas apply to both spatial tiers and have been refined through stakeholder consultation undertaken in October 2008. They are identified below.

## KEY GI THEMES

- 4.5. Key themes to organise the GI Hierarchy, based on environmental, landscape and cultural references, are set out overleaf and shown at **Figures 4.1** and **4.2**. The approach has been summarised in the sketch diagram below.



## **Landscape, Wildlife and Habitats**

- 4.6. To respect and conserve the rural landscape character context of farmland, chalk landscapes and sculpted landforms, minor river valleys and woodlands which form the setting to Stevenage and the towns within North Hertfordshire. To contribute to the landscape strategies and enhancement objectives within the North Hertfordshire and Stevenage Landscape Character Assessment (LCA).
- 4.7. This over arching theme of landscape enhancement is considered in terms of a number of landscape elements below.

### ***Woodlands***

- 4.8. To enhance linkages and to reverse habitat fragmentation, and to conserve existing woodlands to provide an important function in buffering key landscape and environmental assets from development.

### ***River corridors***

- 4.9. To enhance riparian character and wetland habitat connections and also as a basis for attractive, useable blue links.

### ***Heaths, commons and grassland recreation***

- 4.10. To reconnect fragmented grassland and heathland sites, and to deliver habitat re-creation on agricultural land, whilst recognising the significant value of areas of arable farmland for bird habitat.

## **Cultural Heritage**

### ***Roman roads and historic droving routes/ways***

- 4.11. To celebrate North Hertfordshire's rich heritage of Roman occupation and the presence of ancient routes such as the Icknield Way, through enhanced links and connections to key archaeological sites, offering opportunities for interpretation/understanding of key features of the cultural landscape.

## **GI Objectives – basis for principles for planning new GI**

- 4.12. A number of concepts or functional objectives to underpin GI proposals and projects and as part of the basis for evaluation/prioritisation, are set out below, with a bullet point list of supporting subject areas. These have also been used as a basis for formulating design principles for green infrastructure as it relates to growth options sites within the SNAP area, and for the four North Hertfordshire towns.

### ***Re connecting communities; community cohesion***

- Bridging barriers – real and perceived;
- Healthy communities – communal green space and 'common ground';
- Designing out crime;
- Access for all/equal access;

- GI for all ages – natural or free play, ‘outdoor classroom’ etc.

### ***Sustainability***

- Sustainable Water Management and SuDS – functional floodplains;
- Shading, cooling, greening and carbon sinks;
- Local food production and community agriculture;
- Green transport and sustainable movement;
- Implementation and technologies.

### ***Place and culture***

- Landscape, townscape and genius loci;
- Landscape setting and peri urban environments;
- Green space as setting.

### ***Biodiversity***

- Buffers;
- Linkages and habitat creation;
- Access to nature;
- Native planting palettes (climate change adapted) for new green space.

### **Projects within the GI network**

- 4.13. These objectives have informed the ideas for a green infrastructure network for the two tiers, which are set out in **Figures 4.1** and **4.2**, and summarised below. It should be noted that these form an ambitious and aspirational plan for GI in North Hertfordshire, to be considered in conjunction with the Green Infrastructure Action Plan at Chapter 5.

### ***Strategic level***

- Extended and enhanced Roman Road routes for pedestrians, cyclists and horse riders;
- Connections to high level links and existing long distance routes, particularly in areas of PROW deficiency identified in the Rights of Way Improvement Plan (ROWIP);
- Peri urban greenways and ‘Green Wheels’ for settlements such as Stevenage, linking to the established Letchworth Greenway;
- Enhanced blue links and wetland habitat creation to rivers/tributary valley corridors to the Hiz, Purwell, Oughton, Pix and Ivel;

- Functional floodplains at Letchworth and Hitchin, including a new river valley park/green space for Hitchin;
- Landscape enhancement zones including woodland enhancement, chalk valleys and chalk landscapes (e.g. conservation of the landscape of the Lilley Bottom Valley and areas of chalk grassland) and grassland enhancement to farmland areas;
- Woodland enhancement zones include the chalk woodlands to the south of Royston (avoid habitat fragmentation) and on the elevated land to the west of the SNAP (conserve existing where this does not conflict with grassland management). Grassland enhancement to farmland areas has the potential to relieve pressure on sites such as Therfield Heath.

### **SNAP level**

- A new strategic scale green space<sup>30</sup> to the northern edge of Stevenage to address the County level Green space deficiency, to provide a buffer and separate Stevenage from outlying rural villages, such as Graveley and to conserve and enhance the quality and characteristics of the rural landscape to the north of the town;
- Enhanced urban greenway linkages to connect the strategic green space to key urban spaces as Fairlands Valley Park (strategic green space), and as part of a proposed Stevenage 'Green Wheel', as well as connecting to the existing 'green lungs' to the northern edge of Stevenage;
- Enhanced linkages for Sustrans Route 12 and Knebworth Park, including strategic green bridge over the A1(M);
- Other strategic bridges across the A1(M) and the railway to connect existing and future communities, and to link to the PROW network;
- Semi natural green space provision to meet ANGSt and local green space standards requirements and future population requirements, to include district level green space, neighbourhood parks, play (natural play) and allotments;
- Wetland enhancement and restoration to the Langley Valley and associated new 'blue links';
- Strategic SuDS for sustainable water management, amenity and biodiversity;
- Green space buffers for important parkland settings such as Knebworth and Chesfield and to ecological sites such as Knebworth Woods SSSI, as an integral part of the managed, multifunctional green space network;
- Woodland buffering to the A1(M) corridor for attenuation and other woodland buffers to SNAP boundaries, to foil/mitigate development and as a framework for new greenways.

---

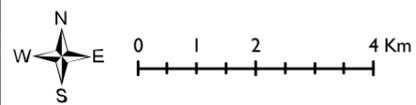
<sup>30</sup> Such a space would also be practical in view of the pylon line which would require a substantial easement in relation to new development and therefore constrains development in this location. The preferred solution would be to underground the pylons, although it is recognised this has significant implications in terms of capital costs.

- 4.14. Green infrastructure for the four towns (Baldock, Royston, Letchworth and Hitchin) is considered separately within the design principles at the end of Chapter 6.

# North Hertfordshire Green Infrastructure Plan

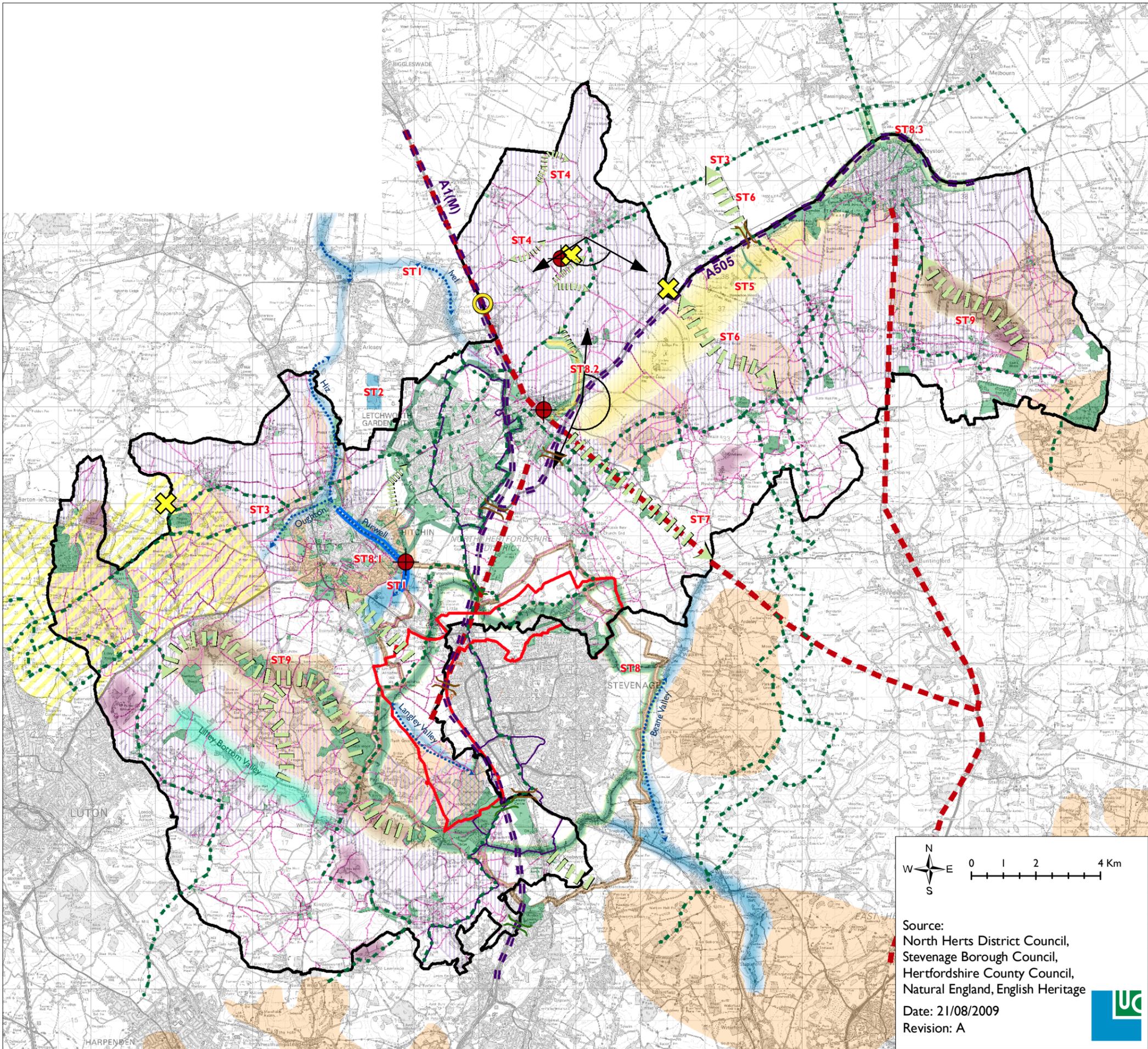
## Figure 4.1: Strategic Green Infrastructure Network

- Key**
- North Hertfordshire District Boundary
  - Proposed SNAP Boundary
  - Existing**
    - Strategic Green Links
    - Barriers (A1M, A505)
    - Prehistoric Sites
    - Roman Sites
    - Roman Road routes (Historic)
    - Letchworth Greenway Level 2 Green Route
    - Stevenage Outer Orbital Path (STOOP)
    - Sustrans National Routes
    - Key views to conserve
    - Green space
    - Historic Parks and Gardens
    - Chilterns AONB
    - SSSI
    - Local Nature Reserves
    - High Biodiversity Areas for Birds
    - Key Biodiversity Areas
    - Open Access Land
  - Proposed**
    - Stevenage Greenway
    - Royston Greenway
    - Baldock Greenway
    - Hitchin River Valley Park
    - Level 2 Blue Links
    - Level 2 Green Links
    - Crossing enhancement
    - Strategic Green Bridge (Land Bridge)
    - Strategic Bridge
    - ST2** Project Numbers
    - Wetland Enhancement Potential
  - Landscape Enhancement Zones**
    - Grassland Zone
    - Chalk Woodland (south of Royston and West of SNAP)
    - Chalk Valley Corridor



Source:  
 North Herts District Council,  
 Stevenage Borough Council,  
 Hertfordshire County Council,  
 Natural England, English Heritage

Date: 21/08/2009  
 Revision: A





# North Hertfordshire Green Infrastructure Plan

## Figure 4.2: Proposed SNAP Green Infrastructure Network

**Key**

- North Hertfordshire District Boundary
- Proposed SNAP Boundary

**Existing**

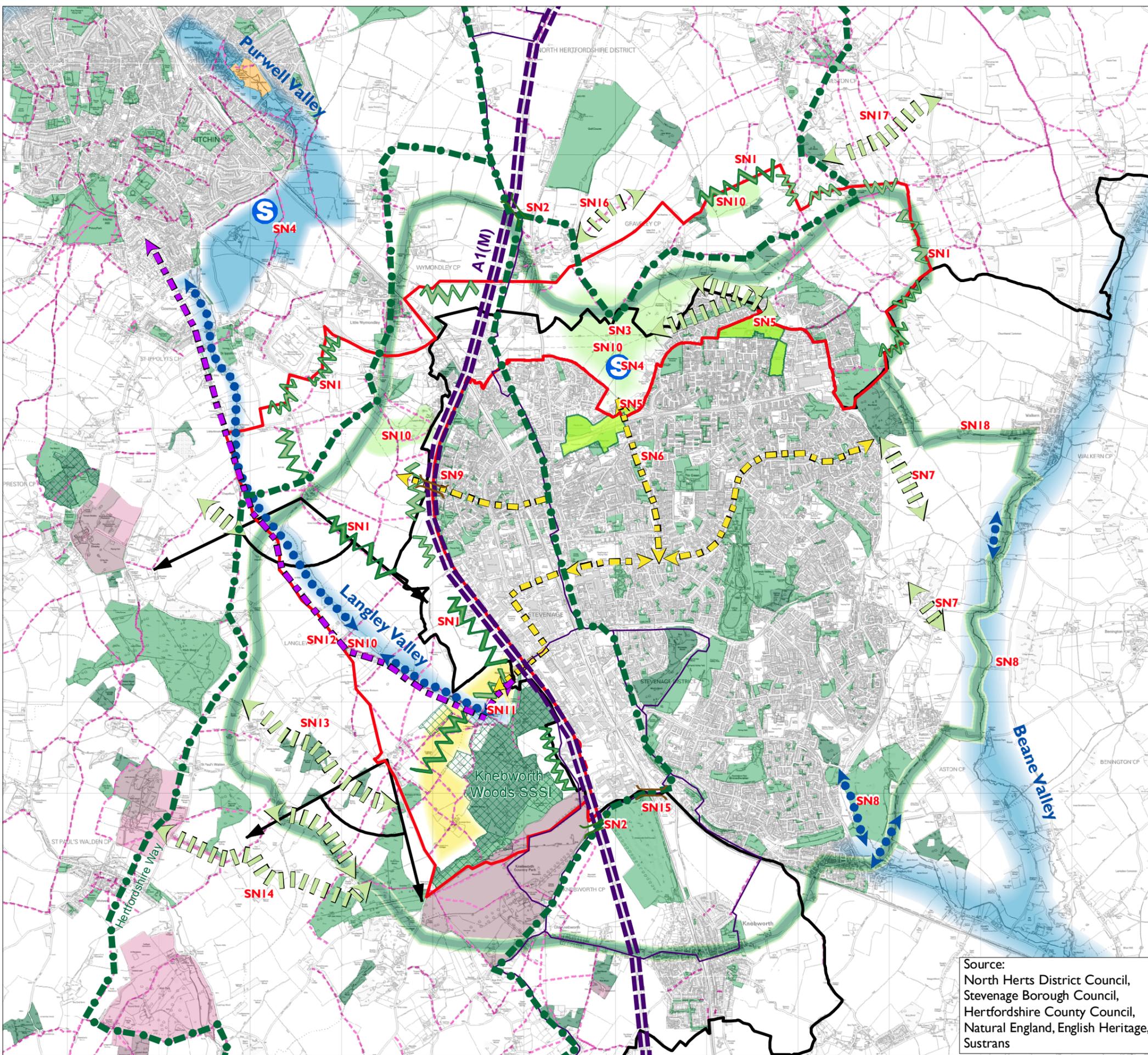
- Strategic Green Links
- Barriers - A1(M)
- Sustrans
- Public rights of way
- Key Views to conserve
- Green space
- Green Lungs identified by Stevenage BC
- Historic Parks and Gardens
- SSSI
- Local Nature Reserves
- Ancient Woodland

**Proposed**

- Level 2 Green Links
- Level 2 Blue Links
- Level 2 Urban Greenway Enhancement
- Proposed Cycle Path
- SNI Project Numbers
- SUDs
- Strategic Green Bridge (Land Bridge)
- Strategic Bridge
- Indicative Landscape Buffer
- Stevenage Greenway
- Wetland Enhancement Potential
- Proposed strategic greenspace - areas of search
- Greenspace Buffer to Knebworth Woodlands/Park

Source:  
North Herts District Council,  
Stevenage Borough Council,  
Hertfordshire County Council,  
Natural England, English Heritage,  
Sustrans

Date: 21/08/2009  
Revision:

Reproduced from Ordnance Survey information with the permission of The Controller of Her Majesty's Stationery Office, Crown Copyright, Land Use Consultants, Licence Number 100019265  
File: S:\4400\4469 North Hertfordshire Green Infrastructure Plan\GIS\Themes\ArcGIS9\4469-01\_021\_SNAP\_GreenInfrastructure\_WorkingMap\_v2.mxd



## 5. GREEN INFRASTRUCTURE ACTION PLAN

---

- 5.1. The following section sets out an ‘action plan’ and implementation strategy for prioritising and delivering the green infrastructure projects identified in **Figures 4.1 and 4.2** in the previous chapter. The approach is set out below.

### ACTION PLAN

#### Project prioritisation

- 5.2. The following criteria have been used to prioritise the GI projects:
- Likely benefits of delivery;
  - Need, including stakeholder support;
  - Broad costs;
  - General consideration of phasing e.g. any projects which could be implemented as advance green infrastructure at the pre development stage, or in step with phased development (such as landscape planting/buffers, SuDS).
  - Contribution to relevant social and environmental targets (e.g. Biodiversity Action Plan and Local Area Agreement targets).
- 5.3. The perceived need or shortfall has been considered, either from the perspective of the deficiency analysis or from information gained from stakeholder consultation. To build up the profile for each project, potential for ‘cross cutting’ or multifunctionality has also been considered. Account has also been taken of the positive actions needed to bring projects forward (or to ensure successful green infrastructure – community consultation and involvement for instance is often essential to ensure ownership and to assist positive future management). An overview is also given of constraints associated with delivery. Whilst projects in proximity to key biodiversity areas will complement biodiversity objectives, they should be developed in close consultation with the Hertfordshire and Middlesex Wildlife Trust. Projects which contribute to enhancing BAP priority habitats may also be desirable in terms of eligibility for Higher Level Stewardship Funding.
- 5.4. The prioritisation exercise has also given broad consideration to capital costs (as explained in the table below), in order to prioritise projects (High, Medium or Low). Within this exercise account has also been taken of the potential of advance green infrastructure to mitigate or compensate for the environmental effects of development. The project prioritisation is shown at **Table 5.1** overleaf.
- 5.5. The project prioritisation table should be read in conjunction with the Implementation Strategy given at **Table 5.2**, which identifies key partners to deliver projects and next steps in order to begin the process of delivery and implementation.
- 5.6. It is recognised that the GI projects and the prioritisation exercise are outline in nature. They therefore signpost to other future work which will be required (e.g.

feasibility studies, surveys and site investigations), to aid the project group and partners in delivering them efficiently.

- 5.7. **Table 5.1** should be read in conjunction with the green infrastructure proposals illustrated at **Figures 4.1 and 4.2**.
- 5.8. Broad/outline cost bands (inclusive of capital works to implement projects) are as follows:
- Low (L): Up to £20,000
  - Moderate/low (M-L): £20,000-£75,000
  - Moderate (M): £75,000-£150,000
  - Moderate/high (M-H): £150,000-£500,000
  - High (H): £500,000-£2million
  - Very High (VH): £2-£5 million
  - Major Project (MP): £5million +
- 5.9. Note that cost bands are broad estimates for capital works only. No account is taken of land assembly/purchase, or other legal and professional fees e.g. in respect of contract administration. Detailed cost estimates for capital works, revenue costs such as management and **all** other professional services/fee costs for the projects should be undertaken as part of the Feasibility Studies for individual projects.
- 5.10. Projects are **prioritised** in relation to the range of benefits they provide, balanced against ease of delivery and any constraints associated with implementation. Projects are prioritised as follows: H – High; MH – Moderate/High; M – Moderate; ML- Moderate/Low; L – Low. High priority projects should either be considered as advance mitigation for future growth, or with an aim to deliver as early as possible by 2026, with Moderate and Moderate/High priority projects delivered or underway by 2031. Lower priority projects would normally be considered after 2031, although components of these could occur earlier to deliver other projects (that is, they may be able to be delivered on a phased basis).

**Table 5.1: NHDC GI Action Plan - Green Infrastructure Project List and approach to prioritisation**

Project No and description	GI Objectives met	Needs	Benefits resulting	What needs to happen to bring forward	Constraints to delivery	Cost band	Priority
<b>Strategic green infrastructure projects</b>							
ST1: Enhanced blue links and wetland creation to rivers/tributary valley corridors to the Hiz, Purwell, Oughton, Pix and Ivel (also to include connection to Kingfisher Way and Stotfold Mill Meadows). To include functional floodplains at Letchworth and Hitchin, including a new river valley park/green space for Hitchin.	Sustainability; Sustainable water management; Community and common ground; Biodiversity/links; Play; Access for all.	Highly variable level of access to rivers and water, revealed through stakeholder consultation and initial field survey;  Biodiversity enhancement identified by LCA.	Enhanced riverside access;  Health/recreation/exercise;  Potential contribution to Hertfordshire BAP targets for wetland habitat creation/enhancement (Hiz Valley catchment contains important wet meadows and fens);  Enhanced opportunities for outdoor exercise contribute towards Outcome A of the Children and Young People block and Outcome B of the Healthy Communities and Older People block of the Hertfordshire Local Area Agreement (LAA);  Access to nature and potential for integrated package of biodiversity enhancements - new wetland and marginal habitats;  Improved riverside access and access to biodiversity contribute towards Outcome E of the Children and Young People block and Outcome B of the Safer and Stronger Communities block of the Hertfordshire LAA.	Public consultation;  Application and consents for/dedication of new PROWs;  Negotiate land ownership agreements;  Technical investigations to determine capacity for wetland features which could provide SuDS functions;  Liaison with Environment Agency;  Post implementation the project would need a comprehensive landscape and ecology management plan to ensure objectives are delivered.	Path links across high biodiversity areas for birds (e.g. to the west of Hitchin) are likely to require detailed ecological survey work;  Also land ownership issues/access agreements.	H (although this depends on exact area and extent of green space created, associated with the new blue links).	H – (If delivered in step with phased development at Hitchin) Could integrate with new SuDS to be provided in advance of development at Hitchin. Phased delivery is also possible to spread cost.
ST2. Arlesey Pits – open up flooded minerals site for wetland habitat enhancement/birdwatching	Community and common ground; Recreation;	Currently limited access to water in the District and environs	Access to nature;  Enhanced landscape and ecological management;	Land ownership and access negotiations;  Liaison with Mid Beds District	Health and safety issues – need for appropriate safeguards in design;  Likely to be a need for	M-H	M – could be opened/restored on a phased basis.

Project No and description	GI Objectives met	Needs	Benefits resulting	What needs to happen to bring forward	Constraints to delivery	Cost band	Priority
/fishing ( <b>Note that this project falls within the adjacent Mid Bedfordshire District and should cross refer to Bedfordshire and Luton Green Infrastructure Plan</b> )	Access for all; Access to nature.		Consistent with Hertfordshire BAP targets for wetland habitat creation/enhancement although beyond County boundary;  Improved access to nature contributes towards Outcome E of the Children and Young People block and Outcome B of the Safer and Stronger Communities block of the Hertfordshire Local Area Agreement (LAA);	Council;  Post implementation the project would need a comprehensive landscape and ecology management plan to ensure objectives are delivered.	decontamination and remediation works.		
ST3. Icknield Way enhancements and interpretation, to include upgrading of surface to Baldock-Ashwell Stretch and between Hitchin-Letchworth to cater for cyclists and horse riders.	Health; Access for all; Sustainable transport; Cultural heritage; Outdoor classroom.	Variable quality and accessibility of the national trail at present (CTC Right to Ride have raised this issue in the past).	Enhanced links/connectivity;  Potential to enhance setting of the way as part of interpretation of Neolithic/Bronze Age heritage along the route.	Public consultation;  Archaeological investigation, and relation to the setting of SAMs on the route.	Land ownership agreements in terms of creating new links/spurs to heritage sites.	M-H (Surface upgrades to Sustrans specification on the two identified stretches = H-VH cost).	M-H
ST4: New level 2 green links from Ashwell, to connect to the Icknield Way and the farmland landscape to the north ( <b>note that further Level 2 green links are identified in SNAP level projects – SNI3, 14, 16 and 17</b> ).	Health; Access for all; Sustainable transport; Cultural heritage.	Absence of local level links/connections between higher level routes (identified through the Herts ROWIP).	Enhanced links/connectivity;  Improved access to walking routes contributes towards Outcome A of the Children and Young People block and Outcome B of the Healthy Communities and Older People block of the Hertfordshire Local Area Agreement (LAA).	Public consultation and feasibility studies;  Application /consents required to dedicate new routes.	Land ownership and access agreements;  Path links across high biodiversity areas for birds are likely to require detailed ecological survey work.	M-H	H, in view of enhanced connectivity to rural villages.
ST5 Grassland restoration to the west and south west of Therfield Heath.	Biodiversity and linkages	To relieve pressure on important grassland sites.	Alleviation of pressures on habitats;  Landscape character enhancement;  Habitat reinforcement;	Take up of Agri environment schemes (has already been a substantial level of take up).	Farming practice and viability.	M (grant scheme already in place).	M, in view of the fact that the heath is an existing substantial habitat resource.

Project No and description	GI Objectives met	Needs	Benefits resulting	What needs to happen to bring forward	Constraints to delivery	Cost band	Priority
			Potential to support North Hertfordshire BAP targets to restore 50 ha of semi-improved neutral grassland and create 50 ha of new neutral grasslands in north and east Herts and to expand chalk grassland resource in the Royston-Baldock area by at least 350 ha.				
ST6: New level 2 green link to the west of Royston, to connect the Icknield Way and Chain Walk	Health; Access for all; Sustainable transport; Cultural heritage.	Absence of local level links/connections between higher level routes (identified through the Herts ROWIP).	Enhanced links/connectivity; Improved access to walking routes contributes towards Outcome A of the Children and Young People block and Outcome B of the Healthy Communities and Older People block of the Hertfordshire Local Area Agreement (LAA).	Public consultation; Feasibility studies; Application /consents required to dedicate new routes.	Land ownership and access agreements; Path links across high biodiversity areas for birds are likely to require detailed ecological survey work.	M-H	H, in view of the fact that these will link disjointed parts of the network.
ST7. Extended and enhanced Roman Road routes for pedestrians, cyclists and horse riders	Reconnecting communities (Access for all); Sustainability (Green transport and sustainable movement).	Lack of connectivity between routes	Cohesive links between level 1 and 2 routes; Cultural landscape relationships re stated; Enhanced opportunities for healthy/sustainable and cheap transport e.g. for pedestrians, cyclists and horse riders; Enhanced opportunities for healthy travel contributes towards Outcome A of the Children and Young People block and Outcome B of the Healthy Communities and Older People block of the Hertfordshire Local Area Agreement (LAA);	Consultation with community and relevant land owners; Feasibility study; Application to HCC; Detailed site survey, investigations and feasibility study for Wall's Field site.	Land ownership and access agreements.	M-H, although cost of green space enhancement to Wall's Field is H-VH.	H (associated with the growth of Baldock).

Project No and description	GI Objectives met	Needs	Benefits resulting	What needs to happen to bring forward	Constraints to delivery	Cost band	Priority
			<p>Would contribute to objectives of ROWIP;</p> <p>Potential to link to enhanced green space and interpretation e.g. at Baldock (Wall's Field) Roman settlement site.</p>				
ST8.1 Greenway for Hitchin – formed by new River Valley Park and also for Stevenage (considered in SNAP level projects), to create a hierarchy of routes for pedestrians, riders and cyclists. <b>Note this project also cross refers to objectives/benefits for project ST1.</b>	Health; Access for all; Sustainable transport; Reconnect communities.	To link existing green transport connections and tie in with urban rural fringe enhancements.	<p>Enhanced links and connectivity;</p> <p>Enhanced opportunities for healthy travel contributes towards Outcome A of the Children and Young People block and Outcome B of the Healthy Communities and Older People block of the Hertfordshire Local Area Agreement (LAA).</p>	<p>Community consultation;</p> <p>Feasibility study;</p> <p>Surveys including ecology and archaeology;</p> <p>Applications /consents and dedication required.</p>	Land ownerships and negotiations of access agreements.	H-VH, depending on exact extent and specification of build up (Sustrans specification will be required for <b>all</b> cycleways).	H – consider in advance of development. Could be delivered in phases to spread cost.
ST8.2 Peri urban greenway for Baldock	Health; Access for all; Sustainable transport; Reconnect communities.	To link existing green transport connections and tie in with urban rural fringe enhancements.	<p>Enhanced links and connectivity;</p> <p>Enhanced opportunities for healthy travel contributes towards Outcome A of the Children and Young People block and Outcome B of the Healthy Communities and Older People block of the Hertfordshire Local Area Agreement (LAA).</p>	<p>Community consultation;</p> <p>Feasibility study;</p> <p>Surveys including ecology and archaeology;</p> <p>Applications /consents and dedication required.</p>	Land ownerships and negotiations of access agreements.	H-VH, depending on exact extent and specification of build up (Sustrans specification will be required for <b>all</b> cycleways).	H – consider in advance of development to urban-rural fringes.
ST8.3 Peri urban greenway for Royston	Health; Access for all; Sustainable transport; Reconnect communities.	To link existing green transport connections and tie in with urban rural fringe enhancements.	<p>Enhanced links and connectivity</p> <p>Enhanced opportunities for healthy travel contributes towards Outcome A of the Children and Young People block and Outcome B of the Healthy Communities</p>	<p>Community consultation;</p> <p>Feasibility study;</p> <p>Surveys including ecology and archaeology;</p> <p>Applications</p>	Land ownerships and negotiations of access agreements.	H-VH, depending on exact extent and specification of build up (Sustrans specification will be required for <b>all</b> cycleways).	H – consider in advance of development to urban-rural fringes.

Project No and description	GI Objectives met	Needs	Benefits resulting	What needs to happen to bring forward	Constraints to delivery	Cost band	Priority
			and Older People block of the Hertfordshire Local Area Agreement (LAA).	/consents and dedication required.			
ST9. New woodland creation for buffering/attenuation, including chalk woodlands to the <b>south</b> of Royston (conserve open farmland and views over the chalk landscape to the west of the town); management of woodlands to elevated landscape to the east of Lilley Bottom Valley, to maintain as a visual buffer for the SNAP area.	Biodiversity; Linkages; Access to nature.	Mitigation/foiling for development;  Deliver wider landscape and biodiversity enhancements.	Landscape buffering;  Potential to relieve pressures on adjoining sites/habitats;  Contributes to North Hertfordshire BAP target to expand woodland by 5,000 ha, including in the target area 'Woodlands to the west of Stevenage';  Enhanced landscape setting;  Possible tie in to new green link to Chilterns AONB/Chiltern Way at Lilley Bottom Valley (no woodland creation to take place within AONB/within the valley)  Improved access to nature contributes towards Outcome E of the Children and Young People block and Outcome B of the Safer and Stronger Communities block of the Hertfordshire LAA.	Grant aid funding applications (EWGS);  Negotiation with landowners;  Surveys and investigation, in particular ecology.	Land ownerships and agricultural economics/viability of farmland.	H-VH, depending on final extent and density /specification of planting.	H – consider as advance planting to mitigate development.
<b>SNAP GI Projects</b>							
SN1. Woodland buffering to the A1(M) corridor for attenuation and other woodland buffers to SNAP boundaries, to foil/mitigate development and as a framework for new	Biodiversity; Linkages; Access to nature; Access for all	Mitigation/foiling for development to growth area boundaries;  Deliver wider landscape and	Landscape buffering;  Potential to relieve pressures on adjoining sites/habitats;  Contributes to North	Grant aid funding applications (EWGS);  Negotiation with landowners;  Surveys and	Land ownerships and agricultural economics/viability of farmland and development;  Land use budget for development and supporting	H-VH, depending on final extent and density of planting/planting specification.	H – essential piece of advance GI, as advance planting to mitigate development.

Project No and description	GI Objectives met	Needs	Benefits resulting	What needs to happen to bring forward	Constraints to delivery	Cost band	Priority
greenways.	(incorporate footpaths and cycleways).	biodiversity enhancements.	Hertfordshire BAP target to expand woodland by 5,000 ha, including in the target area 'Woodlands to the west of Stevenage';  Enhanced landscape setting and improved development edge/peri urban interface;  Improved access to nature contributes towards Outcome E of the Children and Young People block and Outcome B of the Safer and Stronger Communities block of the Hertfordshire LAA;  Incorporation of footpaths/cycleway enhances opportunities for healthy travel which contributes towards Outcome A of the Children and Young People block and Outcome B of the Healthy Communities and Older People block of the Hertfordshire Local Area Agreement (LAA).	investigation, in particular ecology.	infrastructure (ensure buffer is planned for at the outset, and as an integral part of the green space network).		
SN2. Enhanced linkage for Sustrans Route 12 and Knebworth Park - <b>strategic green bridge/landbridge</b> over A1(M).	Access to nature; Access for all; Green transport; Reconnecting communities.	Currently poor green transport connection across A1(M);  Land bridge also has potential to form an enhanced landscape gateway for the Sustrans Route and a green approach to Stevenage.	Habitat creation; Enhanced links and connectivity;  Improved access to Knebworth Park contributes towards Outcome E of the Children and Young People block and Outcome B of the Safer and Stronger Communities block of the Hertfordshire LAA;  Enhances access to healthy	Feasibility and deliverability study, as it is likely such a costly project could only come forward with the widening of the A1(M);  Detailed design and costings;  Surveys including ecology, /soils and substrate /archaeology;	Depending on option pursued, land take may be considerable;  Very high capital costs in light of structural and engineering implications.	MP	L-M (although this could be elevated if widening of the A1(M) is pursued and the project could be subsumed within a far larger programme of capital works).

Project No and description	GI Objectives met	Needs	Benefits resulting	What needs to happen to bring forward	Constraints to delivery	Cost band	Priority
			travel which contributes towards Outcome A of the Children and Young People block and Outcome B of the Healthy Communities and Older People block of the Hertfordshire Local Area Agreement (LAA).	Environmental Impact Assessment.			
SN3. New Strategic Green space to the north of Stevenage to address: the County level Green space deficiency; to provide a buffer/separation function; and to conserve the landscape character and quality of the landscape to the north of Stevenage.	Reconnecting communities (common ground, access for all and GI for all ages); Access to nature; Biodiversity; Outdoor classroom (play); Landscape character and quality.	Park provision has the potential to meet county level deficiency and to provide a hierarchy of different types of green space;  Desire among local community to mark historic associations with EM Forster and his work, and associated Local Heritage Initiative.	Health – access to recreation;  Access to nature – play/outdoor classroom etc;  Potential to contribute to North Hertfordshire BAP targets (e.g. for woodland or grassland creation), depending on habitats created;  Improved access to nature contributes towards Outcome E of the Children and Young People block and Outcome B of the Safer and Stronger Communities block of the Hertfordshire LAA;  Attractive green space setting.	Feasibility Study and masterplan (potentially long lead in times);  Consultation (Enquiry by Design type event to ensure Community engagement etc);  Detailed funding strategy including options and Business Plan;  Post implementation the project would need a comprehensive landscape and ecology management plan to ensure objectives are delivered.	Land assembly and ownership/access negotiations;  Depending on final location, there may be need for remediation and decontamination works;  Determine economic viability of park to pay for itself (may depend on funding/income from other development);  Staffing and management costs, particularly if (as is likely) visitor facilities are to be provided;  Adequate funding to deliver and manage parks to meet community needs and expectations – appropriate future governance models such as Friends Groups, or through a Community Land Trust.	VH-MP, depending on final extent and nature of scheme proposed.	H, although could be delivered on a phased basis, in step with phasing of any development which took place in this area.
SN4. Strategic SuDS for sustainable water management, amenity and biodiversity.	Sustainability and sustainable water management; Biodiversity;	Integral part of all new development to fulfil ecosystem services function.	Biodiversity and landscape enhancement;  Potential contribution to Hertfordshire BAP targets for wetland habitat	Detailed/site specific capacity assessments including ecological, geological and hydrology surveys (particularly to SNAP	Physical characteristics in terms of geology, topography and drainage.	H-VH, depending on area and quantity required (e.g. an urban extension of up to 2500 homes	H – an integral part of sustainable and climate change adapted development. Can be delivered on a phased basis in step with development

Project No and description	GI Objectives met	Needs	Benefits resulting	What needs to happen to bring forward	Constraints to delivery	Cost band	Priority
	Access to nature.		creation/enhancement; Amenity; Potential to form part of natural play and recreation; Improved access to nature contributes towards Outcome E of the Children and Young People block and Outcome B of the Safer and Stronger Communities block of the Hertfordshire LAA.	North); Environmental Impact Assessment (EIA) particularly if delivered as part of a larger development package; Liaison and consultation with the Environment Agency; Post implementation the project would need a comprehensive landscape and ecology management plan to ensure objectives are delivered.		may require around 2ha of balancing ponds). This should be determined on a site by site basis.	phasing.
SN5 Enhanced green links to existing Stevenage 'green lungs' and green spaces to the northern edge of Stevenage, to form level 2 green links to connect existing and new communities.	Access for all; Green transport.	Connections are currently poor.	Health; Enhanced links/connectivity; Enhances access to healthy travel which contributes towards Outcome A of the Children and Young People block and Outcome B of the Healthy Communities and Older People block of the Hertfordshire Local Area Agreement (LAA).	Community consultation; Applications, consents and dedication.	Land ownerships and access agreements.	Negotiation of access agreements; Need for design to take account of surveillance and management considerations.	MH-H. Provides enhanced permeability for existing communities within Stevenage.
SN6. Enhanced urban greenway linkages to connect the Country Park to key urban spaces as Fairlands Valley Park.	Reconnecting communities; Access for all; Green transport.	Pedestrian connections here are currently poor – need for attractive, legible and well designed routes.	Health; Enhanced connectivity/legibility; Enhances access to healthy travel which contributes towards Outcome A of the Children and Young People block and Outcome B of	Community consultation; Applications, consents and dedication; Survey and investigations.	Land ownerships and access agreements.	MH-H	H – Essential to ensure that SNAP connects well to existing green space assets and to existing communities.

Project No and description	GI Objectives met	Needs	Benefits resulting	What needs to happen to bring forward	Constraints to delivery	Cost band	Priority
			the Healthy Communities and Older People block of the Hertfordshire Local Area Agreement (LAA).				
SN7 Enhanced footpath green links to Beane Valley ( <b>Note that the Beane Valley falls within East Hertfordshire District</b> ).	Access to nature; Access for all.	Links are currently highly variable.	Health/recreation Enhances access to healthy travel which contributes towards Outcome A of the Children and Young People block and Outcome B of the Healthy Communities and Older People block of the Hertfordshire Local Area Agreement (LAA);  Improved access to nature contributes towards Outcome E of the Children and Young People block and Outcome B of the Safer and Stronger Communities block of the Hertfordshire LAA.	Community consultation; Applications, consents and dedication;  Liaison with East Hertfordshire District Council for Beane Valley links.	Land ownerships – need for negotiation of access agreements.	MH-H	M. Priorities for investment would be best directed elsewhere in the earlier stages of developing the GI network.
SN8 Enhanced blue links to River Beane ( <b>project falls within East Hertfordshire District</b> ).	Biodiversity and habitat creation; Access to nature; Access for all.	Links are currently highly variable.	Health/recreation; Enhances access to healthy travel which contributes towards Outcome A of the Children and Young People block and Outcome B of the Healthy Communities and Older People block of the Hertfordshire Local Area Agreement (LAA);  Improved access to nature contributes towards Outcome E of the Children and Young People block and Outcome B of the Safer and Stronger Communities block of the Hertfordshire LAA;  Potential contribution to	Community consultation; Applications, consents and dedication;  Liaison with East Hertfordshire District Council.	Land ownerships – need for negotiation of access agreements.	MH-H	M. Priorities for investment would be best directed elsewhere in the earlier stages of developing the GI network.

Project No and description	GI Objectives met	Needs	Benefits resulting	What needs to happen to bring forward	Constraints to delivery	Cost band	Priority
			Hertfordshire BAP targets for wetland habitat creation/enhancement.				
SN9. Strategic bridge across the A1(M).	Reconnecting communities;  Access for all;  Green transport.	Currently poor connections.	Enhanced links/connectivity;  Enhances access to healthy travel which contributes towards Outcome A of the Children and Young People block and Outcome B of the Healthy Communities and Older People block of the Hertfordshire Local Area Agreement (LAA).	Community consultation;  Survey and investigation (incl. ecology and archaeology);  Planning consent.	Possibly dependent on future A1(M) widening;  Land ownership considerations.	H-VH	H – integral part of ensuring good connections between the SNAP and existing communities. Potential future widening of the A1(M) is likely to increase the probability of this project being delivered.
SN10. Semi natural green space provision to meet ANGSt standard requirements and future population requirements, to include district level green space, neighbourhood parks, play (natural play) and allotments.  <b>(NB SN10 areas are partly within existing strategic green spaces. Other local level green spaces are shown – broad areas of search only – to respond to the deficiency analysis).</b>	Common ground;  Access for all (play);  Access to nature;  Sustainability;  Safety and security by design.	To meet Natural England Accessible Natural Green space in Towns (ANGSt) standards in relation to new development.	Health;  Healthy communities;  Landscape and biodiversity enhancement;  Potential to contribute to North Hertfordshire BAP target to ensure that woodland SSSIs are in favourable or recovering condition;  Proper integration of landscape and townscape;  Improved access to nature and provision of high quality green space contributes towards Outcome E of the Children and Young People block and Outcome B of the Safer and Stronger Communities block of the Hertfordshire LAA.	Community consultation (Enquiry by Design or similar) as part of the development masterplan process;  Community involvement at all stages of design and implementation to foster 'ownership';  Adequate funding to deliver and manage parks to meet community needs and expectations – appropriate future governance models such as Friends Groups, or through a Community Land Trust;  Post implementation the projects would need a comprehensive landscape and	Land assembly and land budget constraints (need to plan these green space components in from the first stage of masterplanning).	Individually capital costs of green space components = H-VH, depending on nature of schemes proposed. Collectively, given the extent involved = MP.	H – Essential part of the green space masterplan or 'greenprint' for new development. Green space should be delivered on a phased basis concurrent with the building out of development phases.

Project No and description	GI Objectives met	Needs	Benefits resulting	What needs to happen to bring forward	Constraints to delivery	Cost band	Priority
				ecology management plan to ensure objectives are delivered.			
SN11. Additional community parkland/green space to form development setting and to buffer Knebworth Woods and Park from effects of potential development.	<p>Access to nature;</p> <p>Biodiversity;</p> <p>Reconnecting communities (common ground, access for all and GI for all ages);</p> <p>Outdoor classroom (play);</p> <p>Landscape character and quality.</p>	To protect landscape and environmental assets from effects of development.	<p>Biodiversity safeguarding;</p> <p>Potential to contribute to North Hertfordshire BAP target to ensure that woodland SSSIs are in favourable or recovering condition;</p> <p>Landscape enhancement;</p> <p>Improved access to nature contributes towards Outcome E of the Children and Young People block and Outcome B of the Safer and Stronger Communities block of the Hertfordshire LAA.</p>	<p>Consultation;</p> <p>Surveys (particularly ecology);</p> <p>Need to ensure buffer zone forms an integral part of the green space network (i.e. given a function), and managed appropriately – design out misuse or neglect;</p> <p>Post implementation the project would need a comprehensive landscape and ecology management plan to ensure objectives are delivered.</p>	<p>Land assembly;</p> <p>Land budget considerations (again plan for this project in advance).</p>	H+, depending on final extent.	H - essential GI in advance of development, as part of mitigation proposals.
SN12 - Cycle link Hitchin-SNAP-Langley-Knebworth (B356, and to link to Stevenage Station and existing urban cycle network within Stevenage).	<p>Green transport;</p> <p>Access for all;</p> <p>Health;</p> <p>Reconnecting communities.</p>	Currently a lack of safe cycle access along this route.	<p>Health;</p> <p>Recreation;</p> <p>Enhances access to healthy travel which contributes towards Outcome A of the Children and Young People block and Outcome B of the Healthy Communities and Older People block of the Hertfordshire Local Area Agreement (LAA).</p>	<p>Consultation and feasibility study;</p> <p>Applications, consents and dedication;</p>	Land ownership and access agreement negotiations.	H-VH (Route needs to be to Sustrans construction specification to be of an adoptable standard).	M (although the route could substantially be delivered through the development masterplan for SNAP west if this is developed, and priority may therefore be higher).
SN13: New footpath link between Langley and St	<p>Green transport;</p> <p>Reconnect</p>	Currently a lack of well connected	Health;	Consultation and feasibility study;	Land ownership and access agreement negotiations.	H	M, although may be able to alleviate pressure on GI

Project No and description	GI Objectives met	Needs	Benefits resulting	What needs to happen to bring forward	Constraints to delivery	Cost band	Priority
Paul's Walden.	communities; Access to nature and landscape.	footpath links.	Recreation.	Application and consent; dedication.			through the SNAP as a result of the provision of enhanced links. As such, priority may be elevated.
SN14: New footpath link between Knebworth and Whitwell.	Green transport; Reconnect communities; Access to nature and landscape.	Currently a lack of well connected footpath links.	Health; Recreation.	Consultation and feasibility study; Applications, consents and dedication;	Land ownership and access agreement negotiations.	H	M, although may be able to alleviate pressure on GI through the SNAP as a result of the provision of enhanced links. As such, priority may be elevated.
SN15 – Improved rail crossing to east of Knebworth Park for Sustrans Route 12.	Green transport; Reconnect communities.	Access is currently poor – unattractive underpass and the railway is a visual barrier.	Health; Recreation; Enhances access to healthy travel which contributes towards Outcome A of the Children and Young People block and Outcome B of the Healthy Communities and Older People block of the Hertfordshire Local Area Agreement (LAA).	Consultation (including with Network Rail).	Land ownership and access agreement negotiations.	M-H	M due to relatively low need.
SN16: Enhanced footpath link at Graveley	Green transport; Access to nature and landscape.	Currently a lack of well connected footpath links.	Health; Recreation.	Consultation; Applications, consents and dedication;	Land ownership and access agreement negotiations.	H	M, although may be able to alleviate pressure on GI through the SNAP as a result of the provision of enhanced links. As such, priority may be elevated.
SN17: Enhanced footpath link to Weston	Green transport; Access to nature and landscape.	Currently a lack of well connected footpath links.	Health; Recreation.	Consultation; Applications, consents and dedication;	Land ownership and access agreement negotiations.	H	M, although may be able to alleviate pressure on GI through the SNAP as a result of the provision of enhanced links. As such, priority may be elevated.
SN18: Peri urban greenway (shared use) for Stevenage, with connections to the STOOP (Stevenage Outer	Health; Access for all;	To link existing green transport connections and tie in with urban rural	Enhanced links and connectivity Enhanced opportunities for	Community consultation;	Land ownerships and negotiations of access agreements.	H-VH, depending on exact extent and specification of build up	H – consider in advance of development to urban-rural fringes.

Project No and description	GI Objectives met	Needs	Benefits resulting	What needs to happen to bring forward	Constraints to delivery	Cost band	Priority
Orbital Path).	Sustainable transport; Reconnect communities.	fringe enhancements.	healthy travel contributes towards Outcome A of the Children and Young People block and Outcome B of the Healthy Communities and Older People block of the Hertfordshire Local Area Agreement (LAA).	Feasibility study; Surveys including ecology and archaeology; Applications /consents and dedication required.		(Sustrans specification will be required for <b>all</b> cycleways).	
<b>Other projects</b>							
Townscape GI study for the Stevenage urban area, to link to the SNAP proposals.	Reconnect communities.	Need for a joined up approach.	Enables green infrastructure to be planned holistically and for proper connections to be made between existing and new communities.	Liaison between NHDC and SBC and agreement re: funding; Consult with Natural England.	Availability of budget; Timescale in relation to LDF.	M-L	H. Part of the holistic approach to considering green infrastructure.



### **Implementation strategy**

- 5.11. An implementation strategy has been developed for the projects. This has been informed by stakeholder consultation and covers the following aspects of implementation:
- Key partners;
  - Funding options;
  - Actions necessary/next steps
- 5.12. **Table 5.2** overleaf identifies applicable funding sources for the projects, with a short description of the funding streams and any actions/steps that should be taken to qualify.



**Table 5.2: NHDC GI Action Plan - Implementation Strategy**

Project	Likely funding options	Key issues (pros and cons, work needed to qualify	Action needed to realise	Key partners and links
<b>Strategic GI Proposals</b>				
ST1: Enhanced blue links and wetland creation to rivers/tributary valley corridors to the Hiz, Purwell, Oughton, Pix and Ivel (also to include connection to Kingfisher Way and Stotfold Mill Meadows). To include functional floodplains at Letchworth and Hitchin, including a new river valley park/green space for Hitchin.	Growth Area Funding from CLG for 2009/2010 and 2010/2011 periods.	Application for this funding has already been submitted by the LSCP (London, Stevenage, Cambridge and Peterborough) Growth Area, and CLG allocated £62,902,744 for 2008/09, £56,417,108 for 2009/10, and £56,835,605 for 2010/11.  GAF is not ring-fenced, so there is still potential for North Herts to secure some of the LSCP funds for use on GI projects.  GAF is limited and demand is likely to be high.	Projects need to be identified, scoped and benefits promoted, to encourage facilitate apportionment of some of the LSCP allocate funds for GI.  Feasibility study recommended.	CLG, LSP (Local Strategic Partnerships), Herts Countryside Management Service (CMS), the East and North Herts Primary Care Trust and Stevenage Borough Council.
	Community Infrastructure Levy.	CIL is not yet in place, however if it is adopted it will allow developer contributions to be gathered in a strategic pot, and invested in a range of projects and sites, not just those directly affected by development.  Prior to adoption of the CIL, local authorities have limited authority and opportunity to introduce additional local taxes, but there are some examples of where these have been successfully applied. These examples include Portsmouth, where developers are required to pay a levy towards open space investment, which is calculated per dwelling built. In South East Dorset a similar approach is applied for development within a 5km distance of the Dorset Heaths.  NHDC should consider developing such an approach, which would need to be supported by robust evidence for the open space provision standards.	Develop formula for charging and adopt through the LDF process.	CLG, other council departments, LSP.
	S.106 contributions /Roof taxes.	S.106 contributions and roof taxes can provide a fairly stable form of income, however, there is usually stiff competition for the funds and a strong case for ring-fencing some for GI investment would be required.	Need to develop a schedule of commuted sums/rates for such contributions.	Developers and their agents /consultant representatives, District council.
ST2. Arlesey Pits – open up flooded minerals site for wetland habitat enhancement/birdwatching/fishing ( <b>Note that this project falls within the adjacent Mid Bedfordshire District and should cross refer</b>	Aggregates Levy Sustainability Fund.	Natural England (NE) administers the Aggregates Levy Sustainability Fund. NE's remit is to help allocate money to projects which allow the reduction of the impact of extracting aggregates by:	Contact Natural England Partnership Grants Team:  <a href="http://www.naturalengla">http://www.naturalengla</a>	Natural England Partnership Grants Team, Herts CMS

Project	Likely funding options	Key issues (pros and cons, work needed to qualify	Action needed to realise	Key partners and links
to Bedfordshire and Luton Green Infrastructure Plan)		<ul style="list-style-type: none"> <li>- improving access to land from which aggregates have been extracted;</li> <li>- improving such sites and the surrounding areas;</li> <li>- addressing the effects of extraction on biodiversity and geo-conservation.</li> </ul> <p>The ALSF is currently closed to applications for the 2009-2011 period, as it is considerably oversubscribed. There may be further opportunities to apply for funding in 2010/11, and these will be advertised on the NE website.</p>	<p><a href="http://nd.org.uk/ourwork/conservation/biodiversity/funding/alsf.aspx">nd.org.uk/ourwork/conservation/biodiversity/funding/alsf.aspx</a></p> <p>Undertake feasibility study.</p>	(01476 584821)
ST3: Icknield Way enhancements and interpretation, to include upgrading of surface to Baldock-Ashwell Stretch and between Hitchin-Letchworth to cater for cyclists and horse riders.	NE/Big Lottery Access to Nature Fund.	<p>NE's ATN fund provides grants of between £50,000 and £500,000, as well as a small number of larger grants of over £500,000 for projects which 'have a national significance or impact'.</p> <p><a href="http://www.naturalengland.org.uk/leisure/grants-funding/">http://www.naturalengland.org.uk/leisure/grants-funding/</a></p> <p>ATN Fund requires that the project will alleviate social exclusion or increase access to nature in areas where there is a deficiency. Applications must be submitted by 1<sup>st</sup> February 2010.</p>	<p>Submit a Stage 1 Outline Proposal Form to NE:</p> <p><a href="http://www.naturalengland.org.uk/leisure/grants-funding/how-to-apply.htm">http://www.naturalengland.org.uk/leisure/grants-funding/how-to-apply.htm</a></p> <p>Undertake feasibility/access study.</p>	Natural England ( <a href="mailto:Giles.merritt@naturalengland.gov.uk">Giles.merritt@naturalengland.gov.uk</a> 01223 533572), Herts CMS, NHDC transport departments (ROWIP team), Groundwork
ST4: New level 2 green links from Ashwell, to connect to the Icknield Way and the farmland landscape to the north (note that further Level 2 green links are identified in SNAP level projects – SN13, 14, 16 and 17).	Community Infrastructure Levy.	See above comments in relation to CIL	Develop formula for charging and adopt through the LDF process.	CLG, other council departments, LSP.
ST5 Grassland restoration to the west and south west of Therfield Heath.	Environmental Stewardship Entry Level Scheme.	Most farmland is eligible and <b>there has already been considerable take up</b> . The scheme works on a points system where the applicant must accrue a certain amount of points which are awarded based on the area of land entered into the scheme and the land management options selected.	<p>Undertake consultation with landowners</p> <p>See DEFRA website: <a href="http://www.defra.gov.uk/erdp/schemes/es/default.htm#4">http://www.defra.gov.uk/erdp/schemes/es/default.htm#4</a></p> <p>Land must be registered with the Rural Land Register</p>	Landowners, Natural England

Project	Likely funding options	Key issues (pros and cons, work needed to qualify	Action needed to realise	Key partners and links
ST6: New level 2 green link to the west of Royston, to connect the Icknield Way and Chain Walk	Community Infrastructure Levy.	See above comments in relation to CIL	Develop formula for charging and adopt through the LDF process.	CLG, other council departments, LSP.
ST7. Extended and enhanced Roman Road routes for pedestrians, cyclists and horse riders	Community Infrastructure Levy.	See comments above in relation to CIL	Develop formula for charging and adopt through the LDF process.	CLG, other council departments, LSP.
	EEDA through Regional Infrastructure Fund	EEDA funds projects that have a measurable impact on communities, businesses and people's lives, primarily through long-term projects delivered through partner and sister organisations. EEDA's Regional Infrastructure Programme "aims to capitalise on the region's assets to make the East of England an exciting, attractive and sustainable place".	NHDC to discuss opportunities with EEDA.	NHDC, EEDA
	SUSTRANS	SUSTRANS relies on other charitable sector funding (e.g. through HLF) and private donations. Therefore funding potential; may be limited and should be considered with other sources ('strategic pot').	NHDC to discuss opportunities with SUSTRANS	NHDC, SUSTRANS
ST8.1 Greenway for Hitchin – formed by new River Valley Park and also for Stevenage (considered in SNAP level projects), to create a hierarchy of routes for pedestrians, riders and cyclists. <b>Note this project also cross refers to objectives/benefits for project ST1.</b>	Community Infrastructure Levy.	See comments above in relation to CIL	Develop formula for charging and adopt through the LDF process.	CLG, other council departments, LSP.
	S.106 contributions /Roof taxes.	See comments above in relation to S.106 and roof taxes	Need to develop a schedule of commuted sums/rates for such contributions.	Developers and agents /consultant representatives, District council.
	EEDA through Regional Infrastructure Fund	See comments above in relation to EEDA.	NHDC to discuss opportunities with EEDA.	NHDC, EEDA
	SUSTRANS	See comments above in relation to SUSTRANS	NHDC to discuss opportunities with EEDA.	NHDC, SUSTRANS
ST8.2 Peri urban greenway for Baldock	Community Infrastructure Levy.	See comments above in relation to CIL	Develop formula for charging and adopt through the LDF process.	CLG, other council departments, LSP.

Project	Likely funding options	Key issues (pros and cons, work needed to qualify	Action needed to realise	Key partners and links
	S.106 contributions /Roof taxes.	See comments above in relation to S.106 and roof taxes	Need to develop a schedule of commuted sums/rates for such contributions.	Developers and agents /consultant representatives, District council.
	EEDA through Regional Infrastructure Fund	See comments above in relation to EEDA.	NHDC to discuss opportunities with EEDA.	NHDC, EEDA
	SUSTRANS	See comments above in relation to SUSTRANS	NHDC to discuss opportunities with EEDA.	NHDC, SUSTRANS
ST8.3 Peri urban greenway for Royston	Community Infrastructure Levy.	See comments above in relation to CIL	Develop formula for charging and adopt through the LDF process.	CLG, other council departments, LSP.
	S.106 contributions /Roof taxes.	See comments above in relation to S.106 and roof taxes	Need to develop a schedule of commuted sums/rates for such contributions.	Developers and agents /consultant representatives, District council.
	EEDA through Regional Infrastructure Fund	See comments above in relation to EEDA.	NHDC to discuss opportunities with EEDA.	NHDC, EEDA
	SUSTRANS	See comments above in relation to SUSTRANS	NHDC to discuss opportunities with EEDA.	NHDC, SUSTRANS
ST9. New woodland creation for buffering/attenuation, including chalk woodlands to the <b>south</b> of Royston (conserve open farmland and views over the chalk landscape to the west of the town); management of woodlands to elevated landscape to the east of Lilley Bottom Valley, to maintain as a visual buffer for the SNAP area.	English Woodland Grant Scheme <b>'Woodland Creation Grant'</b> .	<p>Can secure £1800 per ha of broadleaved woodland.</p> <p>Both land and land manager must be registered with the Rural Land Register to apply for this grant. The Forestry Commission is currently taking applications for funding for 2009/2010. The 'Woodland Creation Scheme' encourages the creation of new woodlands where they deliver the greatest public benefits, including annual Farm Woodland Payments to compensate for agricultural income forgone.</p> <p>The site could fulfil most of the aims of the grant, to create woodlands: <a href="http://www.forestry.gov.uk/forestry/inf-d-6dcegu">http://www.forestry.gov.uk/forestry/inf-d-6dcegu</a></p>	<p>Consultation with landowners</p> <p>Submit an application to the Forestry Commission:</p> <p><a href="http://www.forestry.gov.uk/forestry/inf-d-6dcegu">http://www.forestry.gov.uk/forestry/inf-d-6dcegu</a></p>	Forestry Commission, landowners, Herts and Middlesex Wildlife Trust.

Project	Likely funding options	Key issues (pros and cons, work needed to qualify	Action needed to realise	Key partners and links
		The East of England is a priority region for the creation of new woodland.		
	English Woodland Grant Scheme ('Woodland Management Grant').	<p>Can secure up to £30 per hectare of woodland for 5 years.</p> <p>In order to qualify, woodlands of an area greater than 30 hectares must be certified to the UK Woodland Assurance Standard (UKWAS). As part of this a management plan is required, in support of the proposed work.</p> <p>For woodlands of less than 30 hectares in area, these must either be certified, as for a larger woodland, or the application must otherwise be supported by a Condition, Opportunity and Threat (COT) assessment using a standard Forestry Commission template. The COT Assessment must be less than 1 year old at the time of application.</p>	<p>Consultation with landowners;</p> <p>Certification with UKWAS or complete a COT Assessment;</p> <p>Submit an application to the Forestry Commission:</p> <p><a href="http://www.forestry.gov.uk/forestry/infd-6dcebl">http://www.forestry.gov.uk/forestry/infd-6dcebl</a></p>	Forestry Commission, landowners, Herts and Middlesex Wildlife Trust.
	Natural England Energy Crops Scheme.	<p>The Energy Crops Scheme is administered by Natural England and is part of the Rural Development Programme for England (RDPE),</p> <p>Under this scheme, successful applicants can receive 40% of total costs for implementing energy crops schemes, including coppice.</p> <p>Most of North Hertfordshire is shown as having a <b>potential medium yield</b> for short rotation coppice woodland (<b>this could be applicable if CHP proposals were implemented for the urban extension sites</b>).</p> <p><a href="http://www.defra.gov.uk/rural/rdpe/sectg.htm">http://www.defra.gov.uk/rural/rdpe/sectg.htm</a></p>	<p>Contact Natural England on:</p> <p>0300 060 1115 or 01609 767400 for technical queries</p>	Natural England, landowners, Forestry Commission, landowners, Herts and Middlesex Wildlife Trust.
<b>SNAP GI Projects</b>				
SN1. Woodland buffering to the A1(M) corridor for attenuation and other woodland buffers to SNAP boundaries, to foil/mitigate development and as a framework for new greenways.	English Woodland Grant Scheme ('Woodland Creation Grant').	See information above	<p>Submit an application to the Forestry Commission:</p> <p><a href="http://www.forestry.gov.uk/forestry/infd-6dcegu">http://www.forestry.gov.uk/forestry/infd-6dcegu</a></p>	Forestry Commission, landowners, Herts and Middlesex Wildlife Trust.

Project	Likely funding options	Key issues (pros and cons, work needed to qualify	Action needed to realise	Key partners and links
	English Woodland Grant Scheme ('Woodland Management Grant').	See information above	Consultation with landowners;  Certification with UKWAS or complete a COT Assessment  Submit an application to the Forestry Commission:  <a href="http://www.forestry.gov.uk/forestry/inf-d6dcebl">http://www.forestry.gov.uk/forestry/inf-d6dcebl</a>	Forestry Commission, landowners, Herts and Middlesex Wildlife Trust.
	Defra Energy Crops Scheme.	See information above	Contact Natural England on:  0300 060 1115 or 01609 767400 for technical queries	Natural England, landowners, Forestry Commission.
SN2. Enhanced linkage for Sustrans Route 12 and Knebworth Park - <b>strategic green bridge/landbridge</b> over A1(M).	Community Infrastructure Levy.	See comments above in relation to CIL	Develop formula for charging and adopt	CLG, Herts CMS, other council departments, LSP.
	S.106 agreement re. A1(M) widening.	The scale of the potential widening of the A1(M) at Stevenage offers considerable potential to secure planning gain from the Highways Agency. However, funding for such a strategic green bridge is dependent on a large scale development such as this, and is unlikely to be available otherwise.	Discussion with planning department regarding potential for S.106 and progress on potential A1(M) widening scheme /application.	Sustrans, Herts CMS, NHDC Planning department, Highways Agency, neighbouring local authorities.
SN3. New Strategic Green space to the north of Stevenage to address the County level Green space deficiency and to provide a buffer/separation function, and to conserve the landscape character and quality of the landscape to the north of Stevenage.	CIL or S.106 agreements related to planned additional housing.	The scale of the proposed housing growth is likely to ensure that considerable funding is available. This could be secured through a CIL initiative, where the council specifies a financial contribution towards improving green space per new dwellings, or alternatively through S.106 contributions/roof taxes.	Discussion with planning department regarding potential for S.106 or tariff on new homes	Herts CMS, NHDC Planning Department, Stevenage Borough Council.
	EEDA funding e.g. the Regional Infrastructure	See comments above in relation to EEDA.	NHDC to discuss opportunities with	EEDA, Herts CMS, Other NHDC departments, Stevenage

Project	Likely funding options	Key issues (pros and cons, work needed to qualify	Action needed to realise	Key partners and links
	Programme.		EEDA.	Borough Council, local non-governmental organisations and delivery partners e.g. Groundwork and the Herts and Middlesex Wildlife Trust.
	Income-generating activities around the Country Park.	<p>CABE Space's latest guidance on funding green space highlights the potential for strategic green spaces to have associated income generating activities. The Country Park is the most appropriate proposal in terms of income generation due to its size, and features could include a café, shops selling local produce, or a building that could be hired out for functions/conferences.</p> <p>Alternatively the possibility of 'unlocking' commercial potential of development within the SNAP through an endowment fund or Trust, applying the successful River Nene Regional Park model, could also be explored.</p>	<p>Consult other NHDC departments;</p> <p>Undertake feasibility study and business plan;</p> <p>Consult external stakeholders.</p>	Other NHDC departments, Stevenage Borough Council, local non-governmental organisations and delivery partners e.g. Groundwork and the Herts and Middlesex Wildlife Trust, local businesses.
	Heritage Lottery Fund 'Parks for People'.	<p>'Parks for People' offers grants of between £250,000 and £5 million for projects involving urban or rural green spaces designed for informal recreation and enjoyment. The scheme was re-launched in November 2008, with application deadlines in August 2009 and March 2010.</p> <p>HLF funding tends to be quite onerous and time-consuming in terms of the required application and monitoring processes.</p> <p><a href="http://www.hlf.org.uk/English/HowToApply/OurGrantGivingProgrammes/Parks+for+People/">http://www.hlf.org.uk/English/HowToApply/OurGrantGivingProgrammes/Parks+for+People/</a></p>	Review application requirements and prepare application as soon as possible.	HLF, Herts CMS, Groundwork, NHDC Leisure/Parks department.
SN4. Strategic SuDS for sustainable water management, amenity and biodiversity.	Community Infrastructure Levy.	See comments above in relation to CIL.	Develop formula for charging and adopt through the LDF process.	CLG, other council departments, LSP; Developer.
	S.106/Roof taxes	See comments above in relation to S.106 and roof taxes	Need to develop a schedule of commuted sums/rates for such contributions.	Developers and their agents /consultant representatives, District council.
SN5 Enhanced green links to existing Stevenage 'green lungs' and green spaces to the northern edge of Stevenage, to form level 2 green links to	Groundwork /Big Lottery Fund 'Community Spaces'	The Community Spaces fund has a £50 million pot which it will allocate to community-led projects and initiatives in England. To be eligible, projects must be within 2 miles of a residential area, be open to the public most of	Apply for funding as soon as possible (co ordinate with delivery	Groundwork, local community groups, Local Strategic

Project	Likely funding options	Key issues (pros and cons, work needed to qualify	Action needed to realise	Key partners and links
connect existing and new communities.	funding.	<p>the time, be led by a community group, and meet one or more of the outcomes. The more outcomes which are met, the larger the grant for which the project is eligible. Grants range from £10,000 - £450,000. The outcomes are:</p> <ul style="list-style-type: none"> <li>• A better local environment</li> <li>• An increase in access to quality local spaces</li> <li>• An increase in people actively involved in a practical environmental project</li> <li>• An improvement in partnership between support organisations, communities and authorities.</li> </ul> <p>The programme for large grants (£50k - £450k) closed in January 2009. Applications for small (£10,000 - £25,000) and medium (£25,001 - £49,999) grants can be made until January 2011.</p>	<p>partners).</p> <p>Application details are provided on the website: <a href="http://www.community-spaces.org.uk/default.aspx?page=11">http://www.community-spaces.org.uk/default.aspx?page=11</a></p>	Partnership, parish councils, Herts CMS, Herts and Middlesex Wildlife Trust.
	Community Infrastructure Levy	See comments above in relation to CIL	Develop formula for charging and adopt through the LDF process.	CLG, other council departments, LSP; Developer.
	S.106/Roof taxes	See comments above in relation to S.106 and roof taxes	Need to develop a schedule of commuted sums/rates for such contributions.	Developers and their agents /consultant representatives, District council.
SN6. Enhanced urban greenway linkages to connect the Country Park to key urban spaces as Fairlands Valley Park.	Groundwork /Big Lottery Fund 'Community Spaces' funding.	See comments above in relation to Community Spaces Funding	<p>Apply for funding as soon as possible (co ordinate with relevant delivery partners).</p> <p>Application details are provided on the website: <a href="http://www.community-spaces.org.uk/default.aspx?page=11">http://www.community-spaces.org.uk/default.aspx?page=11</a></p>	Groundwork, local community groups, Local Strategic Partnership, parish councils, Herts CMS, Herts and Middlesex Wildlife Trust.
	Community Infrastructure Levy.	See comments above in relation to CIL	Develop formula for charging and adopt through the LDF	CLG, other council departments, LSP; Developer.

Project	Likely funding options	Key issues (pros and cons, work needed to qualify	Action needed to realise	Key partners and links
			process.	
SN7 Enhanced footpath green links to Beane Valley ( <b>Note that the Beane Valley falls within East Hertfordshire District</b> ).	Groundwork /Big Lottery Fund 'Community Spaces' funding.	See comments above in relation to Community Spaces fund	Apply for funding as soon as possible (co ordinate with relevant delivery partners).  Application details are provided on the website: <a href="http://www.community-spaces.org.uk/default.aspx?page=11">http://www.community-spaces.org.uk/default.aspx?page=11</a>	Groundwork, local community groups, Local Strategic Partnership, parish councils, Herts CMS, Herts and Middlesex Wildlife Trust.
SN8 Enhanced blue links to River Beane ( <b>project falls within East Hertfordshire District</b> ).	Groundwork /Big Lottery Fund 'Community Spaces' funding.	See comments above in relation to Community Spaces fund	Apply for funding as soon as possible.  Application details are provided on the website: <a href="http://www.community-spaces.org.uk/default.aspx?page=11">http://www.community-spaces.org.uk/default.aspx?page=11</a>	Groundwork, local community groups, Local Strategic Partnership, parish councils, Herts CMS, Herts and Middlesex Wildlife Trust.
SN9. Strategic bridge across the A1(M).	S.106 agreement re. A1(M) widening.	The scale of the potential widening of the A1(M) at Stevenage offers considerable potential to secure planning gain from the Highways Agency.	Discussion with planning department regarding potential for S.106 and progress on potential A1(M) widening scheme /application.	Sustrans, NHDC Planning department, Highways Agency, neighbouring local authorities.
SN10. Semi natural green space provision to meet ANGSt standard requirements and future population requirements, to include district level green space, neighbourhood parks, play (natural play) and allotments.  <b>(NB SN10 areas are partly within existing strategic green spaces. Other local level green spaces are shown – broad areas of search only – to respond to the deficiency analysis).</b>	Community Infrastructure Levy.	See comments above in relation to CIL	Develop formula for charging and adopt through the LDF process.	CLG, other council departments, LSP; Developer
	S.106/Roof taxes	See comments above in relation to S.106 and roof taxes	Need to develop a schedule of commuted sums/rates for such contributions.	Developers and their agents /consultant representatives, District council.
	Groundwork /Big Lottery Fund 'Community Spaces' funding.	See comments above in relation to Community Spaces fund	Apply for funding as soon as possible (co ordinate with delivery partners).	Groundwork, local community groups, Local Strategic Partnership, parish councils, Herts CMS,

Project	Likely funding options	Key issues (pros and cons, work needed to qualify	Action needed to realise	Key partners and links
			Application details are provided on the website: <a href="http://www.community-spaces.org.uk/default.aspx?page=11">http://www.community-spaces.org.uk/default.aspx?page=11</a>	Herts and Middlesex Wildlife Trust.
SN11. Additional community parkland/green space to form development setting and to buffer Knebworth Woods and Park from effects of potential development.	Community Infrastructure Levy.	See comments above in relation to CIL	Develop formula for charging and adopt through the LDF process	CLG, LSP; Sustrans, NHDC Transport department (ROWIP team),
SN12 - Cycle link Hitchin-SNAP-Langley-Knebworth (B356, and to link to Stevenage Station and existing urban cycle network within Stevenage).	Growth Area Funding.	See comments above in relation to GAF	Projects need to be identified, scoped and benefits promoted, to encourage facilitate apportionment of some of the LSCP allocate funds for GI.	CLG, LSP (Local Strategic Partnerships), Sustrans, Herts Countryside Management Service (CMS).
	Community Infrastructure Levy.	See comments above in relation to CIL	Develop formula for charging and adopt through the LDF process.	CLG, LSP, NHDC Transport department (ROWIP team).
SN13: New footpath link between Langley and St Paul's Walden.	Community Infrastructure Levy.	See comments above in relation to CIL	Develop formula for charging and adopt through the LDF process.	CLG, LSP, NHDC Transport department (ROWIP team).
SN14: New footpath link between Knebworth and Whitwell.	Community Infrastructure Levy.	See comments above in relation to CIL	Develop formula for charging and adopt through the LDF process	CLG, LSP; NHDC, Sustrans, Transport department (ROWIP team),
SN15 – Improved rail crossing to east of Knebworth Park for Sustrans Route 12.	Community Infrastructure Levy.	See comments above in relation to CIL	Develop formula for charging and adopt through the LDF process.	CLG, LSP, NHDC Transport department (ROWIP team).
SN16: Enhanced footpath link at Graveley	Community Infrastructure Levy.	See comments above in relation to CIL	Develop formula for charging and adopt through the LDF process.	CLG, LSP, NHDC Transport department (ROWIP team).

<b>Project</b>	<b>Likely funding options</b>	<b>Key issues (pros and cons, work needed to qualify</b>	<b>Action needed to realise</b>	<b>Key partners and links</b>
SN17: Enhanced footpath link to Weston	Community Infrastructure Levy.	See comments above in relation to CIL	Develop formula for charging and adopt through the LDF process.	CLG, other council departments, LSP.
SN18: Peri urban greenway (shared use) for Stevenage, with connections to the STOOP (Stevenage Outer Orbital Path).	Community Infrastructure Levy.	See comments above in relation to CIL	Develop formula for charging and adopt through the LDF process.	CLG, other council departments, LSP.
	S.106 contributions /Roof taxes.	See comments above in relation to S.106 and roof taxes	Need to develop a schedule of commuted sums/rates for such contributions.	Developers and agents /consultant representatives, District council.
<b>Other projects</b>				
Townscape GI study for the Stevenage urban area, to link to the SNAP proposals.	Natural England	Natural England may be willing to part fund such a study, if it could be shown how a study would progress NE's strategic objectives.	NHDC and SBC to liaise with Natural England.	Natural England; Stevenage Borough Council.
	NHDC budget			



- 5.13. The Project Prioritisation and Implementation Strategy set out a high level, aspirational network of projects, all of which can deliver the green infrastructure vision for North Hertfordshire. A number of projects are 'quick wins' which could be delivered in advance of development as part of mitigation (e.g. landscape buffering), whilst others are essential in relation to sustainability and ecosystem services (SuDS).
- 5.14. Small scale green infrastructure projects such as community parks/gardens and riverside green spaces can be as important as aspirational or large scale projects as they all contribute to the green infrastructure network or form 'pieces of the puzzle'.

### **Project monitoring**

- 5.15. Monitoring and recording of green infrastructure delivery will be vital in evaluating the success of the green infrastructure network. This audit trail can be established by the project group and key partners in a number of ways:
- Recording the involvement of community members and key stakeholders through Enquiry by Design and other community or public consultation events;
  - Planning conditions for the delivery and management of green infrastructure, supported by officer liaison and site inspections during implementation;
  - Final site inspection of new green spaces to be handed over to the Local Planning Authority as part of a Section 106 Agreement;
  - Use/visitor surveys after projects are implemented;
  - Establishment of Friends Groups or Community Land Trusts to manage new areas of community green space;
  - Monitoring in relation to biodiversity could take the form of Phase I/species surveys to test changes in the baseline, or through species migration surveys, as appropriate;
  - Many projects which depend on public sector grant funding will require the establishment of a rigorous audit trail to confirm that the project delivers the required environmental outcomes. For example Heritage Lottery Fund (HLF) projects require mentoring and the appointment of an expert 'monitor' to liaise between the HLF and the consultants preparing the scheme.
- 5.16. It is suggested that once the project group has shortlisted the green infrastructure projects based on this action plan, a central record is kept of processes that can be used to monitor delivery, whether through planning conditions and attendant site inspections, or through reporting as part of the grant aid process. This could be the responsibility of a Green Infrastructure Project Officer, or a Delivery Panel convened of representatives from North Hertfordshire District Council, Natural England, the Wildlife Trust, the Environment Agency and key landowners. Tasks for such an individual or group are set out below (Next steps for green infrastructure in North Hertfordshire).

### **Next steps for green infrastructure in North Hertfordshire**

- 5.17. It is recommended that an additional Green Infrastructure Plan is undertaken for the urban area of Stevenage to tie in with the North Hertfordshire Green Infrastructure Plan, in order that green infrastructure can be considered as holistically as possible.

#### ***A green infrastructure project officer or delivery panel***

- 5.18. Possible responsibilities for a nominated officer or project group in relation to green infrastructure delivery, are as follows:
- Act as a green infrastructure ‘champion’, liaising with key members of the Local Strategic Partnership (in terms of environment and recreation), to ensure that green infrastructure contributes to the objectives of the Sustainable Community Strategy and the Local Development Framework;
  - Evaluate development proposals as they relate to green infrastructure against green infrastructure projects in the Green Infrastructure Plan;
  - As a consultee, comment on relevant planning applications through the pre application and application processes, using the Green infrastructure projects and principles defined in this Green Infrastructure Plan;
  - Ensure that developers and others bringing forward green infrastructure not only take account of the green infrastructure principles, but that they also identify sustainable, resourced mechanisms for long term governance to deliver design intentions and desired environmental outcomes;
  - Make appropriate links with future funding partners identified within the prioritisation exercise, in relation to co ordination of funding bids;
  - Liaison with appropriate community representatives in the formation of Friends Groups, where this is appropriate to secure long term project governance (e.g. in relation to community parks and greenways);
  - Develop appropriate consultancy briefs for masterplanning and detailed design services in relation to the first projects within the shortlist, making appropriate reference to the green infrastructure principles at Chapter 6 of the Green Infrastructure Plan;
  - Create an audit trail of appropriate monitoring mechanisms in relation to green infrastructure delivery, as described at paragraph 5.15 above. The purpose should be to monitor performance of the green infrastructure proposals in relation to the environmental functions, to inform and refine future iterations of the spatial plan for North Hertfordshire District.