Green Infrastructure Strategy Herefordshire

Local Development Framework

February 2010

Herefordshire Council

Working in partnership for the people of Herefordshire

NHS Herefordshire

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Preface

This document has been produced to provide evidence for Herefordshire Local Development Framework (LDF) – Core Strategy. Although as a Green Infrastructure Strategy it can also be used for other purposes, at this point in time it has not been adopted for use beyond contributing to the LDF evidence base.

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1.0 INTRODUCTION

1.1 Background

1.1.1 Herefordshire Council is a Unitary District authority providing local governance across the land area historically recognised as the County of Herefordshire. Bordering Wales to the west and south-west, Shropshire to the north, Worcestershire to the east and Gloucestershire to the south-east, Herefordshire is not only part of the West Midlands and the fertile lands of 'middle' England and the south-west, but also closely associated with a border landscape steeped in history and often conflict. The county is predominantly rural and covers approximately 840 square miles. The principal settlements are the City of Hereford at the geographic centre of the county and five principal market towns – Kington, Leominster, Bromyard, Ledbury and Ross on Wye – located approximately equidistant from the city in an arc from the north-west to the south-east of the county.

Figure 1-1 Location of Herefordshire

1.1.2 A landscape that due to its topography, geology and rivers preserves many natural features and traditional land uses has resulted in a county rich in biodiversity and natural assets. Settlement and human activity in Herefordshire can be traced back to pre-history, with many historic features, buildings and land uses preserved in the Herefordshire landscape. Traditions and cultures are strong and apparent in everyday life. However, as with much of the UK, pressure to accommodate an increasing population, provide employment and leisure opportunities, preserve or create strong communities, encourage a vibrant economy and tackle the implications of climate change are bringing about unprecedented and rapid change.

1.1.3 Originating in the United States of America in the early 1970s, a time when many US cities were expanding almost uncontrolled, the principles of green infrastructure planning were developed to protect, create and link natural assets and systems to ensure their survival and build in resilience to change. Similar initiatives began to be developed and described in the UK; however, it is only recently that the principles have been progressed and fully incorporated into the planning system. Developed and matured to include urban, peri-urban and rural areas, green infrastructure planning has become an essential component of successful sustainable development planning. By establishing a robust network, or infrastructure, of natural and green[1] assets, development can be accommodated in such a way as to tackle many of the issues identified in 1.1.2 above. The principles of green infrastructure planning are now well established in the UK, supported and endorsed by government and its agencies. In the government identified 'Growth Areas' of the East of England, East Midlands and South East regions green infrastructure policies and projects are now being realised. Elsewhere, and most notably in the North West region, green infrastructure has been closely related to both economic and social regeneration.

1.1.4 At a time when Herefordshire is determining the future pattern and location of development and land use through the preparation and publication of its Local Development Framework, it is expedient that natural assets and systems are also recognised and incorporated into the planning system. The parallel development of this strategy will provide both an evidence base for where and how development should take place and bring to the fore the need to incorporate the highest standards of protection for existing assets and the design of new.

[1] In the context of green infrastructure the term 'green' should be taken to include all open spaces that make up our environment, natural and man-made systems that support life and contribute to our existence, and associated features and components of the environment, which make a positive contribution to our environment and existence (buildings, archaeological features, traditions and cultures, transport systems and networks, etc.)

1.2 What is Green Infrastructure?

1.2.1 A definition of green infrastructure has been developed by Natural England:

> *'Green Infrastructure is a strategically planned and delivered network comprising the broadest range of high quality green spaces and other environmental features. It should be designed and managed as a multifunctional resource capable of delivering those ecological services and quality of life benefits required by the communities it serves and needed to underpin sustainability. Its design and management should also respect and enhance the character and distinctiveness of an area with regard to habitats and landscape types.*
>
> *Green Infrastructure includes established green spaces and new sites and should thread through and surround the built environment and connect the urban area to its wider rural hinterland. Consequently it needs to be delivered at all spatial scales from sub-regional to local neighbourhood levels, accommodating both accessible natural green spaces within local communities and often much larger sites in the urban fringe and wider countryside.'*

This encapsulates the principles of green infrastructure planning and the main aims of this strategy. One of the most significant aspects of green infrastructure planning is the emphasis placed on determining the extent, type and location of resources at the beginning of the development process; deciding on the need for, function and value of the deliverable resource at the outset. Green infrastructure fully recognises the value of green resources to both the natural and human influenced and dependent environments.

1.2.2 The principles of green infrastructure have been expanded on in the West Midlands in work carried out by the West Midlands Regional Assembly and published under the title, *Green Infrastructure; A prospectus for the West Midlands Region (2007)*; a definition, similar to the above and examples of implemented green infrastructure projects can be found in that document. This strategy does not include a revised definition of green infrastructure and regards the Natural England definition and the West Midlands prospectus as sufficient to establish the basis for the work.

1.3 Aims & Objectives of the Strategy

1.3.1 The aim of the Green Infrastructure Strategy is to place a framework of natural and culturally important features and functions at the heart of planning for a sustainable future for development within Herefordshire, at least up to 2026. This will include the establishment of policies and principles

for the protection and enhancement of those features and functions that contribute to the environment of Herefordshire across a range of scales.

1.3.2 In order to achieve the aim of the strategy, the following objectives have been identified:

- To provide an evidence base of green infrastructure assets based on a comprehensive analysis and understanding of:
  - all natural resources and systems
  - all related land uses and human systems and activities, both past and current
- To establish a vision for a sustainable future for Herefordshire's environment and green infrastructure assets.
- To identify and promote the economic, social and health benefits of a multifunctional environment, centred on a dynamic green infrastructure network.
- To ensure comprehensive recognition of green infrastructure assets, deficiencies and opportunities within the local planning framework.
- To establish principles and policies that secure protection and promote the enhancement of existing green infrastructure, and identify opportunities and means of creating new, high quality green infrastructure.
- To produce guidelines for developers, planners and land managers that will ensure the successful integration, implementation and ongoing management of green infrastructure.
- To maximise the contribution green infrastructure provision can make towards mitigating the effects of and adapting to the implications of climate change, including flood risk management.
- To identify specific projects and opportunities, including opportunities for funding, that best deliver green infrastructure and act as examples to others.
- To realise the contribution green infrastructure can make to the reversal of habitat fragmentation and decline in biodiversity through investment in the restoration, creation and protection of priority habitats.
- To realise the contribution green infrastructure can make to the protection and restoration of landscape character and cultural heritage, particularly the reversal in decline in condition of landscapes.

Some of the objectives will be explored as part of the delivery stage, as explained in Section 7.

1.4 Report Structure

1.4.1 The Green Infrastructure Strategy has been produced in a format that will allow for the inclusion of supplementary information, further study and additional projects at a later date. Produced in two parts, part one places green infrastructure in context, both nationally and locally. It establishes an evidence base for the existing resource and identifies the issues and opportunities for green infrastructure at a range of scales across the county. The second part begins by establishing a vision for green infrastructure across the county, analyses the existing and potential green infrastructure network in more detail, expanding on some of the mechanisms for providing a robust framework. It goes on to establish guiding principles for maintaining the green infrastructure network and incorporating, through development and other appropriate mechanisms, new components and elements of infrastructure; it also identifies potential projects and delivery methods for future green infrastructure.

1.4.2 The development of the strategy has been an incremental and iterative process that will continue to develop over time, but is based on a simple four stage structure.

1.4.3 *Stage One*

The first stage was to identify as much of the existing green infrastructure resource as possible; this work was undertaken by external consultants[2] under the project title *Herefordshire Green Infrastructure Study (GInS)*, during 2007 and early 2008. The findings of that study have been incorporated into the strategy (See Section 3). Information was gathered under two principal themes – Natural Resources and Human Influenced Resources – subdivided into a total of nine datasets.

1.4.5 *Stage Two*

Stage two of the process was to assess the issues and opportunities surrounding green infrastructure supply and demand; this was in part carried out during the study phase, but also developed through the iterative process of drafting the main document. Two ‘stakeholder’ meetings were also held, with a limited, but representative, audience aimed at qualifying the information gathered to date. It is recognised that further stakeholder engagement will be required.

1.4.6 *Stage Three*

The third stage of the process was to develop guiding principles for green infrastructure provision; establishing suitable and appropriate policies for the

[2] Owen Williams (Amey plc)

various components of the green infrastructure network. The principles and policies have been developed, not as a set of ‘hard and fast’ rules, but as a way of instilling the concept of green infrastructure planning into the development process. The report includes the identification of locations and opportunities, and the development of generic or guiding principles for green infrastructure (See Sections 4 and 5). The targets and aspirations contained in the strategy are set to a high standard and aim for a comprehensive coverage and supply of green infrastructure.

1.4.7 *Stage Four*

As a product of the above, the final stage of the strategy development will be to imagine a series of scenarios by which additional green infrastructure could be created and ways in which the wider community and other agencies could engage with the green infrastructure agenda. The resultant delivery mechanisms and projects will be identified to generate debate, stimulate further exploration of opportunities and encourage engagement with other and potential partners. Some of the contents of Section 7 are purely hypothetical, but realistic, and are intended to illustrate the potential of green infrastructure planning. It is also considered possible to attribute estimated costs to some of the mechanisms described, based on past and shared experiences.

1.4.8 The Green Infrastructure Strategy has no conclusion. The provision and delivery of green infrastructure within Herefordshire is seen as an ongoing process. It started with the formation of the planet (encapsulated in the diverse geology of the county), has been influenced by human and natural actions and activities and continues into the future through the careful custodianship and provision and maturation of new green infrastructure, thereby creating a truly sustainable environment through the development process.

2.0 GREEN INFRASTRUCTURE IN CONTEXT

2.1 Origins and Demand for the Strategy

2.1.1 Herefordshire Council is currently preparing its Local Development Framework (LDF) that will guide the future of built development and land use within the County to 2026 and beyond. As part of the preparation of the LDF, the Council has recognised the need to identify, protect and enhance the special qualities and assets within the county that contribute to the natural, cultural and public environment; to identify potential delivery projects and mechanisms; and to ensure sustainable development within and across the county. Hereford and the five principal market towns[1] have been identified (in partnership with central government) as a New Growth Point[2]; it is considered essential, both locally and strategically within the West Midlands Region, that the identification and provision of green infrastructure should play a significant part in the future of development in the area.

2.1.2 As the proponent of New Growth Point status, Herefordshire Council, in partnership with central government and local partners, aims to facilitate the building of around 8,500 new homes in Hereford and the market towns by 2016 – increasing the rate of development beyond regional targets. Development will be of the highest quality and will follow the identification and provision of all necessary infrastructure whilst preserving and enhancing the quality and distinctive environment of the city and county. Enhanced and increased development rates are considered appropriate to stimulate the local economy, provide for and support local communities and generate a quality and improved environment; the recognised principles of sustainable development. As part of the contract between Herefordshire Council and its partners (see Appendix A for the Agreement Statement on Growth Point) the production of a Green Infrastructure Strategy is considered essential to ensure that the protection and production of quality environments is at the heart of all new development and, as such, its production is a condition of Growth Point status.

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1 Leominster, Bromyard, Ledbury, Ross on Wye and Kington

2 The New Growth Point agenda, definition and implications are discussed in other documents concerning strategic planning across the county

2.2 Policy Background and Relationship to Other Plans

2.2.1 *National Policy*

The principles of green infrastructure planning are recognised and reflected in national planning policy. Planning Policy Statement 1 (PPS1) – *Delivering sustainable development (2005)*, identifies the need to ensure development contains an appropriate mix of uses including green and other public space. Notably PPS1 makes specific reference to the:

> *'…condition of our surroundings* [having] *a direct impact on the quality of life and the conservation and improvement of the natural and built environment* [bringing] *social and economic benefit for local communities. Planning should seek to maintain and improve the local environment and help to mitigate the effects of declining environmental quality through positive policies on issues such as design, conservation and the provision of public space*.'[3]

This is added to further in the document *Planning and Climate Change – Supplement to PPS1 (2007)*, which recognises the important part played by green infrastructure in addressing climate change, that:

> *'…the contribution to be made from existing and new opportunities for open space and green infrastructure to urban cooling, sustainable drainage systems, and conserving and enhancing biodiversity…'*[4]

should be taken into account by the planning process.

2.2.2 Further, and more specific support for green infrastructure planning is given in PPS12 – *Local Spatial Planning (2008)* noting that the development of a core strategy:

> *'...should be supported by evidence of what physical, social and green infrastructure is needed to enable the amount of development proposed for the area, taking account of its type and distribution. This evidence should cover who will provide the infrastructure and when it will be provided. The core strategy should draw on and in parallel influence any strategies and investment plans of the local authority and other organisations.'*[5]

PPS12 goes on to recognise that:

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3 para. 18, *PPS1 Delivering Sustainable Development*, DCLG, 2005
4 para. 24, *Planning & Climate Change – Supplement to PPS1*, DCLG, 2007
5 para. 4.8, *PPS12 Local Spatial Planning*, DCLG, 2008

'...Good infrastructure planning considers the infrastructure required to support development, costs, sources of funding, timescales for delivery and gaps in funding.'[6]

2.2.3 Planning Policy Guidance 17 (PPG17) – *Planning for Open Space, Sport and Recreation (2002)* introduced the principle of developing green space or open space strategies, with emphasis on recreational activity, access, quality and management. An audit of open space provision, carried out in accordance with PPG17, will contribute to the evidence base of green infrastructure strategies, but requires further interpretation to realise the wider, multifunctional benefits and services that can be accrued. Similarly, PPS9 – *Biodiversity and Geological Conservation (2005)* recognises the need to see designated sites and protected assets within the wider context of a functional environment, and supports some of the principles at the core of green infrastructure planning;

'Networks of natural habitats provide a valuable resource. They can link sites of biodiversity importance and provide routes or stepping stones for the migration, dispersal and genetic exchange of species in the wider environment. Local authorities should aim to maintain networks by avoiding or repairing the fragmentation and isolation of natural habitats through policies in plans. Such networks should be protected from development, and, where possible, strengthened by or integrated within it. This may be done as part of a wider strategy for the protection and extension of open space and access routes such as canals and rivers, including those within urban areas.'[7]

Other relevant planning policy statements include; PPS7 – *Sustainable Development in Rural Areas*; PPS25 – *Planning and Flood Risk*; and PPS22 – *Renewable Energy*.

2.2.4 As the government agency with responsibility for the management, protection and enhancement of the environment, Natural England has produced comprehensive guidance on green infrastructure, a definition of green infrastructure and a policy position statement; *Housing Growth and Green Infrastructure*; this strategy has been developed in line with these documents.

2.2.5 In May 2009, the Government published its' vision for improving the quality of built and open space; '*World class places: The Government's strategy for improving quality of place'*. The strategy identifies how quality of place influences quality of life, economic activity and social cohesion and disorder.

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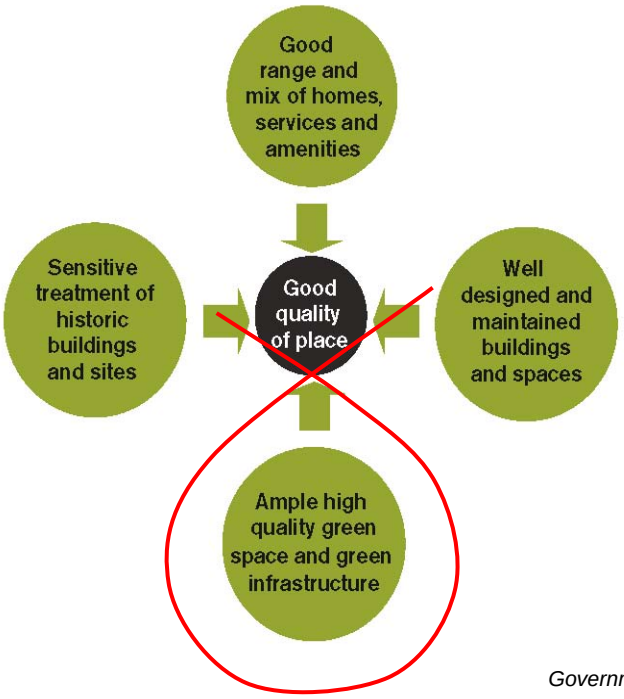
6 para. 4.9, *PPS12 Local Spatial Planning*, DCLG, 2008

7 para. 12, *PPS9 Biodiversity & Geological Conservation,* ODPM, 2005

'*World class places*' explains both how and why it is important to create well-designed and functional places and emphasises the role of green infrastructure in achieving those aims [Fig. 2-1].



Source: '*World class places: The Government's strategy for improving quality of place, 2009*'

2.2.6 *Regional Policy*

The Regional Spatial Strategy (RSS) is currently undergoing a phased review. As part of the third phase it is proposed to replace the existing policy Quality of Environment (QE4) – *Greenery, Urban Green Space and Public Spaces* with a new policy, specifically titled *'Green Infrastructure'*. Other policies in the RSS, also currently under review, that are relevant to green infrastructure planning relate specifically to landscape character, biodiversity and geodiversity, the historic environment, forestry and woodland, flooding and the water environment, and quality of the built environment.

2.2.7 *Local Policy*

The Herefordshire LDF will recognise the importance of creating a sustainable environment across the county, and will necessarily be driven by the contents of the Green Infrastructure Strategy. The developing Core Strategy for Herefordshire contains a preferred policy direction for Green Infrastructure.

The preferred policies will:

- Ensure that new developments are designed in a way that enhances Herefordshire's green infrastructure, for example through linking into

existing green networks, addressing climate change or enhancing biodiversity.

- Seek positive contributions for green infrastructure proposals, particularly in areas where there is an identified need, through the Infrastructure Delivery Policy.

2.2.8 *Biodiversity Action Plan*

The Herefordshire Biodiversity Action Plan (BAP) contains targets and actions for locally and nationally important species and habitats across the county. Close reference is made to the Herefordshire BAP (Section 3.3.10) and the Green Infrastructure Strategy has been developed to reflect some of the priorities contained in this plan. To compliment the BAP, it is intended that 'Biodiversity Opportunities Maps' will be produced for the county, identifying areas where concentrated and collected effort to aggregate valued sites and assets will have the greatest benefits to specific habitat types or mosaics of habitats. Naturally, 'Biodiversity Opportunities Maps' will help inform, and be informed by the Green Infrastructure Strategy, although the ambitions and outcomes of the two are sufficiently different to merit distinction.

2.2.9 *Sustainable Community Strategy*

It is also the intention of the Green Infrastructure Strategy to reflect the aims and objectives of the Herefordshire Sustainable Community Strategy, particularly the building of stronger communities and the creation of quality places to live and work.

2.3 Methodology

2.3.1 *Identification of Assets*

The initial process of identifying green infrastructure assets within and across the county was carried out through a separate project, commissioned by Herefordshire Council, entitled *Herefordshire Green Infrastructure Study*. The work sought to identify the sources of information relating to natural assets and human influenced resources that contributed to green infrastructure; assessed the quality and completeness of the information gathered; and considered how the information could be used, through the identification of issues and opportunities, to develop green infrastructure policies and principles.

2.3.2 Much of the work of the *Green Infrastructure Study* was the collation and assessment of datasets already within the Council's ownership. Simple analysis of Ordnance Survey information and site-specific information from Natural England were also used. Some data was sourced directly from

specialist providers and owners. The assessment of datasets and Geographic Information Systems (GIS) was predominantly observational, noting where and how large resources were, how often they occurred, and indentifying patterns and clusters of sites. The quality of, and how up to date, the information gathered was assessed by querying the data providers. There was no scope within the study project to carry out new fieldwork or field assessment of information supplied; however, there was a general degree of confidence in the veracity of the information provided.

2.3.3 Methodologies for and measurement of quality and condition of assets varied hugely between datasets and resources, and it was considered that no comparable or reasonable conclusions about the implications of positive or negative condition could be determined or influence the resultant strategy. The existence of a site or resource should be considered as the necessary 'trigger' for protection, enhancement or restoration of condition, and the current condition, if poor, should not be seen as a reason for discounting an asset from the strategy.

2.3.4 From the outset, information was grouped into what would be considered naturally occurring and human influenced and culturally relevant green infrastructure. In total nine themes were identified under which sometimes divergent, but logical groupings of resources could be gathered. It is acknowledged that none of our landscapes are truly natural and that our biodiversity resources are influenced by human activity. For the purpose of clarity, and in line with generally received opinion, however, biodiversity has been included in the 'natural assets' section and landscape character in the 'human influenced' section. Each theme has been described in terms of the current resource at three geographic levels (see 2.3.7 below), identification of areas of deficiency of resource, and the likely opportunities for developing new or enhancing existing green infrastructure resources.

2.3.5 *Assessment of Deficiencies & Needs*

The assessment of the distribution of green infrastructure assets, and deficiencies, was carried out by observational analysis of the mapped resource. The general methodology applied in the strategy is one of absence equating to deficiency, although it must be recognised that the mapped resource is not comprehensive or complete, and that previously unknown sites and assets will exist. A precautionary principle will be adopted in relation to unknown existing resource in the development of policies and guidance later in the strategy. Furthermore, absence of green infrastructure does not equate to need; analysis of the defined geographic tiers, likely opportunities resulting from new development and improvements in existing resources combine to identify where the greatest need for improved green infrastructure exists.

2.3.6 Further analysis of need is carried out in relation to deprivation and population density later in the strategy; again, the purpose being simply to direct resources and attention to those areas where the greatest benefit would accrue. Research into the economic and social benefits of an improved environment are now widely accepted,[8] as is the correlation between poor health, income and quality of life, and quality of environment. Overlaying graphic representations of indices of multiple deprivation data, poor health and population density on to strategic green infrastructure proposals will aid the process of determining where greatest public benefit will result. The targeting of delivery and resultant benefit is explored further at Section 7 of the strategy.

2.3.7 *Strategic Geographic Tiers – Definition & Distribution*

The analysis of green infrastructure resource and proposals for provision has been described at three geographic levels or tiers: county, district and local. The county tier, the broadest scale of green infrastructure, recognises that large-scale green infrastructure assets extend across the administrative boundaries of the county, and represent the largest, most valued and often protected components of the landscape. The district tier concentrates on the geographic connections between the principal towns, comprised of medium sized, valued sites and assets that contribute to functional and identifiable compartments of the landscape. The district tier of green infrastructure is often formed from a series of linked or associated sites and assets, some of which are afforded legal or statutory protection. Whereas, the local tier – adjustable in scale allowing for the identification and creation of assets across a whole town or in small parts of a town – identifies the locally important, small-scale assets, which contribute to local communities. Generally, local assets will not be afforded any statutory protection or have any formal designation, but will be highly valued by the local community, and represent some of the best opportunities for creating a sustainable and functional environment.

2.3.8 Geographic subdivision allows for refinement of analysis and targeting of provision at scales that relate to relevant delivery mechanisms and projects. Examples of the types of green infrastructure asset, along with general descriptions of function and use, to be found in each tier are described in Table 1. Recommendations for new or improved infrastructure are likely to be generic at the county and district tiers; proposing landscape scale projects or major additions to the stock of sites and assets – for example a new

[8] For example the Public Benefit Recording System (PBRS) has been developed and widely used in the North-West Region. The Northwest Regional Development Agency in partnership with Natural England have also produced evidence of the wider benefits of green infrastructure to the economy in their publication, *The Economic Value of Green Infrastructure.*

country park. Proposals for local infrastructure provision are likely to be specific, although based on a suite of principles, but identifying how the new asset would contribute to the larger strategic tiers, whilst making a direct contribution to the individual site and adjacent community.

2.3.9 A further refinement of the geographic tiers will identify corridors and zones that will require enhancement to ensure the successful integration of new development into Herefordshire. These corridors and zones are intrinsically linked to the developing proposals for the expansion and growth of settlements and communities around the county. The principal output of the strategy will be a description of green infrastructure in the following terms:

- **District Strategic Corridors** – to provide broad and robust linkages between major assets and population centres.
- **Local Strategic Corridors** – to provide refined linear infrastructure linking local sites and ensuring connectivity of assets between and within community areas.
- **District Enhancement Zones** – identification of broad areas, focussed on population centres where the provision of green infrastructure will have the widest benefit to the greatest number of people.
- **Local Enhancement Zones** – identification of areas where the provision of green infrastructure is required to create the most sustainable living and working places.

2.3.10 In the assessment and consideration of provision for each settlement, a further layer has been included; the interface or transition between settlement and countryside; **Fringe Zones**. These have been included both in recognition of the inevitable pressures of development on these areas, and also because of the diversity of activities, assets and services inherent in these areas. As with the local tier of assessment, the fringe zones are necessarily fluid in scale to reflect the variable influence of different sized settlements and the sensitivities of assets in the vicinity.

Geographic tier	Example of green infrastructure asset	Function and use
County	• National Park • Area of Outstanding Natural Beauty • Main rivers and their floodplains • Sites of national & international nature conservation importance (e.g. SAC, SSSI) • Forest & large wooded areas • National Nature Reserve • Trunk roads, motorways & railways • National heritage assets • Long-distance footpaths & national cycleways	• Geographically large areas of land or sites with high levels of public access, natural value and resources, and cultural distinction. Nationally or internationally recognised for their inherent value and protected in law and policy. • General principles of protection, enhancement and expansion apply. • Long-distance linear features of national and international importance, linking large-scale components of landscape, sites of biodiversity value or providing extensive recreational opportunities.
District	• Country park • Rivers & large streams and their floodplains • Large open water bodies • Local Nature Reserves • Special Wildlife Sites & Site of Importance to Nature Conservation • Large woods • Local roads, canals and disused railway lines • Promoted local walks • Historic parks & gardens • Scheduled Ancient Monuments • Aggregated habitats e.g. orchards, grasslands, etc.	• Geographically medium to large areas of land, sites or aggregated sites with public access, containing natural value and resources, and contributing to the distinctiveness of the area. Nationally or locally important sites and areas recognised for their inherent value and protected in law and local policy. • General principles of protection, enhancement and expansion apply, with emphasis on creating linkages between sites across the landscape. • Local and wider community access to open space, natural assets and culturally important places. Extensive recreational opportunities.
Local	• Recreation grounds, playing fields & public green spaces • Public parks & gardens • Commons • Small water bodies, ditches, streams & brooks • Allotments, churchyards & cemeteries • School playing fields and grounds • Public rights of way & roadside verges • Cyclepaths • Conservation Areas • 'Street scene' e.g. urban trees, roundabouts & verges, planting beds, etc. • Ancient and veteran trees	• Geographically small areas of land, sites or aggregated sites with or providing public access, containing some natural value and resources, and making a positive contribution to the local community. Locally important sites and areas recognised for their inherent value possibly protected by local policy. • General principles of enhancement and expansion apply, with emphasis on creating linkages between sites across neighbourhoods. Active management for access and recreation, biodiversity and the creation of multifunctional places are prioritised. • Provision of activity spaces, learning spaces and local movement corridors for mobile flora and fauna.

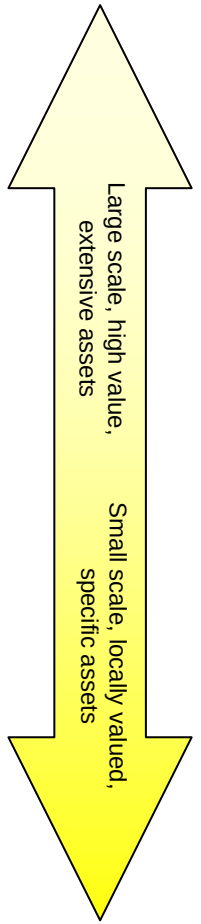


Table 2-1 Geographic tiers: examples, function and use

2.3.11 *Sensitivity & Opportunity*

As part of the data gathering stage – the Green Infrastructure Study – some assessment of the likely sensitivities of the existing resource has been made. These sensitivities are described as 'issues' at Section 3, in recognition that some of the sensitivities may not arise from direct threats or changes, but derived from changes in circumstance, legislation or policy. Some issues may be related to improving understanding and knowledge, and require further research into the topic concerned, others may relate to a specific shortfall in provision or dysfunctional components of infrastructure. The sensitivity of assets has not been described at different geographic tiers as it is held that most issues are likely to be common across the range of that asset; for example, the fragmentation of habitats is as much an issue at a broad landscape scale as it is at a very local level.

2.3.12 Opportunities to address specific issues have been identified, but the list is not exhaustive and site-specific opportunities will be addressed as they arise. To tackle the issues identified and develop the strategy more widely some specific solutions or approaches have been described, again, at the three geographic levels described above, but many remain generic, establishing principles that are developed more fully in the latter stages of the strategy. At Section 4 the strategic framework for the county, district and local networks of green infrastructure are described more fully.

2.3.13 *Guiding Principles*

The guidelines, framework and networks of green infrastructure have been created by overlaying known resources with projected opportunities for development, based on areas deficient in green infrastructure, with the express intent to create new resources, buffer or extend existing resources and link sites and assets generally. The simple premise that proximity to population centres provides the greatest benefit and value for money, and requires the highest quality of design and a degree of flexibility in approach to optimise opportunities, under-pins the whole strategy. Principles have been derived that address both general and specific aspects of green infrastructure delivery. Attention is directed toward areas of human influenced green infrastructure and opportunities deliverable through new development; specifically principles have been developed for the following aspects:

- Natural Assets
- Biodiversity
- Landscape
- Cultural and Historic Environment
- Access and Recreation

- Urban Green Space

2.3.14 *Realising Green Infrastructure – the Delivery Mechanism*

The final section of the green infrastructure strategy addresses the potential and possible mechanisms for delivering an improved, multifunctional landscape through development, initiatives, partnerships and projects. The aspirations of the strategy are considered to be realistic and targeted concepts, developed in part through the iterative process of researching and forming the strategy, and from similar examples and initiatives enacted elsewhere. Each delivery mechanism or initiative draws on one, or a combination of distinct features of the existing resource, linking the improvements to that resource to the potential benefits likely to accrue. It is not expected that all of the initiatives described will be delivered, that some may be amalgamated into single extensive projects is possible and that, where appropriate, potential essential partner organisations are identified.

2.3.15 Emphasis should be placed on those projects and initiatives that are expected to deliver maximum public benefit and value for money, whilst optimising opportunities for ensuring a sustainable and robust network of green infrastructure assets. Part 2 of the Green Infrastructure Strategy commences with a ‘vision’ for the future of the environment and component assets in and around the county and settlements within it; the delivery mechanisms identified are targeted towards fulfilling that vision.

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3.0 GREEN INFRASTRUCTURE ASSETS – ISSUES & OPPORTUNITIES

3.1 General

3.1.1 Before planning or developing policies for the provision of new, and enhancement of existing green infrastructure, it is essential firstly to identify the extent of the existing asset and understand the ways in which it functions or fails to function. In order properly to understand the current situation, it is necessary to divide the analysis of the existing resource into manageable components, both geographically and thematically. For each component of the existing resource, analysis is made of the extent or provision, any apparent issues surrounding the resource and the opportunities that may arise for each component through the development of the strategy. The data used to assess the existing resource has been drawn from a variety of locations – from both national and local inventories and sources – and is intended to provide an overview of the present situation. The source and extent of information is not exhaustive and as new information becomes available it should be incorporated into developing or revised policies.

3.1.2 The assessment of the existing green infrastructure resource has been divided into two generic groups. Firstly, 'Natural Systems' that reflect the foundation of what would be perceived as the 'natural' environment; the underlying geology, the process of water, the resultant landform and the biodiversity that has emerged over time as a result of natural and human interaction. Secondly, the 'Human Influences' section recognises both the direct and manifest impact of human activity on the environment, but also the way in which the result is perceived.

3.1.3 Each component of the existing green infrastructure resource is assessed by identifying ***The Resource, Issues*** and ***Opportunities***. At the end of each section a summary is produced for quick reference. The analysis carried out in this part of the strategy identifies the following distinct components:

- **Geology** defines the inherent physical characteristics of the county and generates many resources, which underpin the pattern of colonisation and exploitation by humans, plants and animals.

- **Hydrology** - water movement and action - within the county has shaped both the land form and pattern of settlement and colonisation, and continues to do so. Aquatic and associated biodiversity has little capacity to migrate beyond the restriction of the existing physical resource and may be 'specialist' in nature. The hydrological resource includes ephemeral and subterranean elements.

- The **topography** of the county is the product of millennia of geophysical activity, erosion and abrasion, influencing settlement and colonisation and the way we perceive and understand our environment.

- **Biodiversity** is the variety of ecosystems such as those that occur in forests, wetlands, mountains, lakes, rivers and agricultural landscapes, often in a network of sites and corridors. In each ecosystem, living creatures, including humans, form a community, interacting with one another and with the air, water, and soil around them.

- **Land use** encapsulates the components within the landscape that cannot be clearly defined within other descriptions, but relates closely to human occupation of the land.

- The extensive network of **access and movement** corridors within the county and between main settlements allow for both human contact with the wider environment and the migration of plants and animals. Transport infrastructure and the resolution of accessibility issues can make positive contributions to green infrastructure.

- The physical environment that we experience today is the product of human activity over many generations. Sites and elements of the landscape that can be defined by their **archaeological, historical and cultural** values contribute to our experiences and understanding of how we have arrived at our present situation.

- The diversity of form, structure and features in the landscape and the way people experience them is assessed under the heading of **landscape character**. Landscape is considered to be '…an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors'.[1]

- Formal **designated and accessible open space**, predominantly within the settlements, provides communities with access to recreation and the 'natural environment', often in intimate proportions. Recreation in and enjoyment of the countryside can also be provided through the formal designation of open space.

3.1.4 The information in this section was collated by Owen Williams Consultants (Amey) as part of a study commissioned by Herefordshire Council. The original document *Herefordshire Green Infrastructure Study, 2008* has been reworked and supplemented to fit within the structure of the wider Green Infrastructure Strategy. Where possible omissions and errors in the original

[1] European Landscape Convention, 2000 (signed and ratified by the UK government in 2006)

document have been corrected or clarified; however, it should be acknowledged that ‘ground-truthing’ of evidence and datasets collected at both parts of the process has not been comprehensive.

3.2 Strategic Geographic Tiers

3.2.1 In order to aid the analysis of the existing provision of green infrastructure, three geographic tiers have been defined; the sub-region or ***county***, inter-town area or ***district*** and town and ward or ***local*** level. Later this will facilitate the identification of discrete opportunities for protecting, enhancing and creating new infrastructure at all three levels. Developing green infrastructure policies based on these tiers allows for an easy understanding of how comparatively small sites and developments contribute to the wider asset.

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3.3 Natural Systems

Geology

The Resource

3.3.1 The principal geological features, asset and mineral resources for the ***county*** are:

- The predominant underlying sandstones, mudstones and conglomerates of the Siluro-Devonian 'Lower Old Red Sandstone Group' to the central part of the county, producing versatile soils, supporting diverse agriculture.
- Older 'Wenlock Limestone' and 'Ludlow Shale' of the Silurian period forming higher ground to the east of the county around the Malvern Hills and Woolhope Dome and to the west and north, defining the Welsh Marches.
- The high ridge of the Malvern Hills to the east of the county comprising Precambrian extrusive and intrusive igneous rocks.
- Principal river valleys contain alluvial drift, terrace deposits of sands and gravels providing a ready supply of aggregates.
- To the north and west of the county, glacially derived till, comprising sands and gravels marks the southern-most extent of the last glaciations.
- Across the county there are 21 Sites of Special Scientific Interest (SSSI) designated for their geological importance and 117 Local Geological Sites, also known as Regionally Important Geological Sites (RIGS)[2]. A further twenty SSSIs across the county contain important geological features not included in the site citations

At ***district*** level, geological features and assets contribute the following:

- The importance of geology in the area is reflected in the non-statutory, but internationally recognised designation of the Malvern and Abberley Hills Geopark – approximately 10% of the county to the east and north is within the Geopark.

[2] All of these SSSI sites are also RIGS

- Clay deposits throughout the county have provided a ready supply of brick making material.
- Pockets of usable sand and gravel may be distributed throughout the minor fluvial systems.

At ***local*** level, geological features and assets contribute the following:

- Locally distinctive building materials, principally local stone, define some of the county's vernacular architecture; predominantly the use of igneous material around the Malvern area, limestone around the Woolhope area, red sandstones in the vicinity of Bromyard and the surrounding plateau and limestone to the north-west and far south of the county.
- Extraction sites and quarries have historically provided some of the best opportunities for national and international geological and archaeological research.

Issues

3.3.2 The principal issues relating to geology are:

- Recognition of the importance of the county's geological resource.
- Acknowledging that geological and mineral deposits are a finite resource and that they need to be managed in a sustainable way. Of particular importance is the need to preserve, unfettered by development, below ground deposits of sand and gravel.
- Recognising the contribution of geology to local distinctiveness in relation to our historical and cultural inheritance and the way we experience our environment. Acknowledging that geology influences the extent of habitat, land use and development opportunities.
- Realising the most sustainable after-use for redundant extraction sites and quarries.
- Understanding the role of geology in influencing soils, below surface structures and local environmental factors and the development of subsequent land use planning policies.
- Securing the favourable condition of geological SSSIs and RIGS.

Opportunities

3.3.3 The main geological opportunities for the ***county*** are:

- Understanding the influence of geology on the perception of the county and its distinctiveness within the region.
- Provision of a sustainable source of construction materials including building stones, brick clay and aggregates.
- Economic and social benefit accruing from the sand and gravel extraction industry in the county, and from the resultant use of worked-out sites.

The main geological opportunities at a ***district*** level are:

- Continuing recognition of the national and international importance of geological formations and exposures in a significant portion of the county and their ongoing contribution to international, national and local research and education.
- Understanding the influence of geology on geographical distinctiveness within the county and relating this to development will further enhance quality of design.

The main geological opportunities at a ***local*** level are:

- Providing a source of local stone to aid the preservation of local distinctiveness in building style and conservation repairs to important buildings. Local clay soils also provide the opportunity for the production of local bricks.
- Individual exposures providing educational, cultural, biodiversity and recreational benefits.
- The sensitive planning and design of after-use for mineral extraction sites to benefit local biodiversity and communities.

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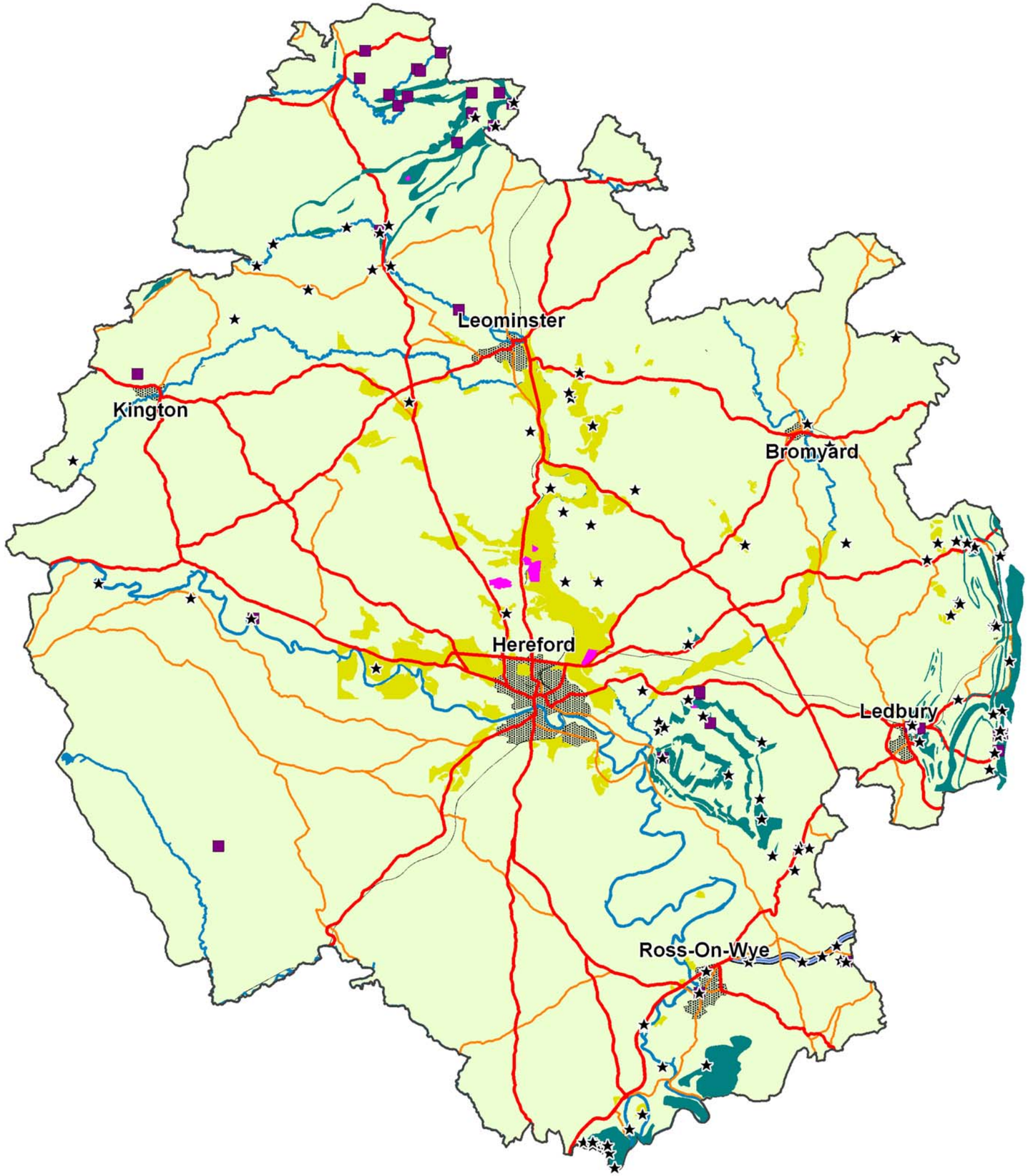
Green Infrastructure Strategy

Figure 3-1 Geology



Settlements

Motorway

A Roads

B Roads

Rail

Rivers

Geology

★ Regionally Important Geological & Geomorphological Site (RIGS)

Geological Conservation Review site (GCR)

Minerals - Primary Extraction Area

Sand & gravel deposits

Hard rock deposits

Herefordshire Council

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NORTH

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
Hereford
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

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Hydrology[3]

The Resource

3.3.4 The principal hydrological assets in the ***county*** are:

- The whole of the River Wye and a substantial part of the River Lugg, are both recognised for their ecological value by European designation as Special Areas of Conservation (SAC) and both in their entirety as SSSIs.

Between the principal towns and elsewhere in the county, rivers, streams and other hydrological assets exist at a ***district*** level:

- The River Lugg between Leominster and Hereford
- The River Lugg between Leominster and Presteigne (Powys)
- The River Wye between Ross on Wye and Hereford
- The River Wye between Hereford and Hay on Wye (Powys)
- The River Frome between Bromyard and Hereford
- The River Arrow between Kington and Leominster
- Important 'wetlands' are identifiable at the 'Letton lakes' and 'Wigmore glacial lake' areas and in the meadows surrounding the River Arrow west of Leominster. The confluence of the Rivers Frome, Lugg and Wye to the east and south-east of Hereford also create a distinct area of wetland habitat.
- Sand and gravel extraction in the lower reaches of the River Lugg has resulted in a number of large open water bodies at Bodenham, Wellington and Withington and at Stretton Sugwas, north of the River Wye to the west of Hereford
- In the north, a short section of the River Clun SAC passes through the county
- In the north of the county the River Teme (SSSI)

[3] Hydrology is also the specific subject of a separate Water Cycle Study

At a ***local*** level, rivers and streams influence all of the major settlements in the county:

- Leominster:
    - River Lugg
    - River Arrow
    - Kenwater
    - Pinsley Brook
- Bromyard:
    - River Frome
- Ledbury:
    - River Leadon
- Ross on Wye:
    - River Wye
    - Rudhall Brook
- Kington:
    - River Arrow
    - Back Brook
- Hereford:
    - River Wye
    - River Lugg
    - River Frome
    - Yazor Brook
    - Withy Brook
    - Red Brook
    - Newton Brook
    - Eign Brook
    - Widemarsh Brook
    - Ayles Brook
- Elsewhere in the county, the Rivers Monnow and Dore have local importance.
- A number of substantial pools exist around the county and have local significance; for example, at Berrington Hall, near Leominster and at Eywood Park, Titley (both are designated as SSSIs).

Issues

3.3.5 The principal issues relating to hydrology are:

- The risk of flooding in and around the principal settlements and the need to manage the impact of flooding.
- The need to understand and ensure that the hydrological resource in the county has finite limits, particularly in relation to water quality and quantity in the main rivers and streams.
- Recognising the contribution that rivers, streams and other water bodies make to local distinctiveness in relation to the historic and cultural settlement pattern within the county.
- Understanding the contribution of watercourses and water bodies to biodiversity, both as a distinct habitat and as a connecting corridor.
- Fully understanding the recreational demands and expectations placed on the county's hydrological resources.

Opportunities

3.3.6 The main hydrological opportunities for the ***county*** are:

- The development of a robust flood risk management approach on all major watercourses utilising existing geographical features and catchments and naturally occurring systems that will also benefit biodiversity.
- Provision of sustainable water supplies to meet the demands of an increased population, agriculture and industry.
- Ensure continued water quality in all major rivers and water bodies to reflect their recognised ecological status.
- Manage the principal water bodies to ensure their continued value for diverse recreational demands, ultimately seeking to improve the quality and experiences of all users.

The main hydrological opportunities at a ***district*** level are:

- Maintain and enhance local watercourses to preserve and increase local distinctiveness and landscape character.

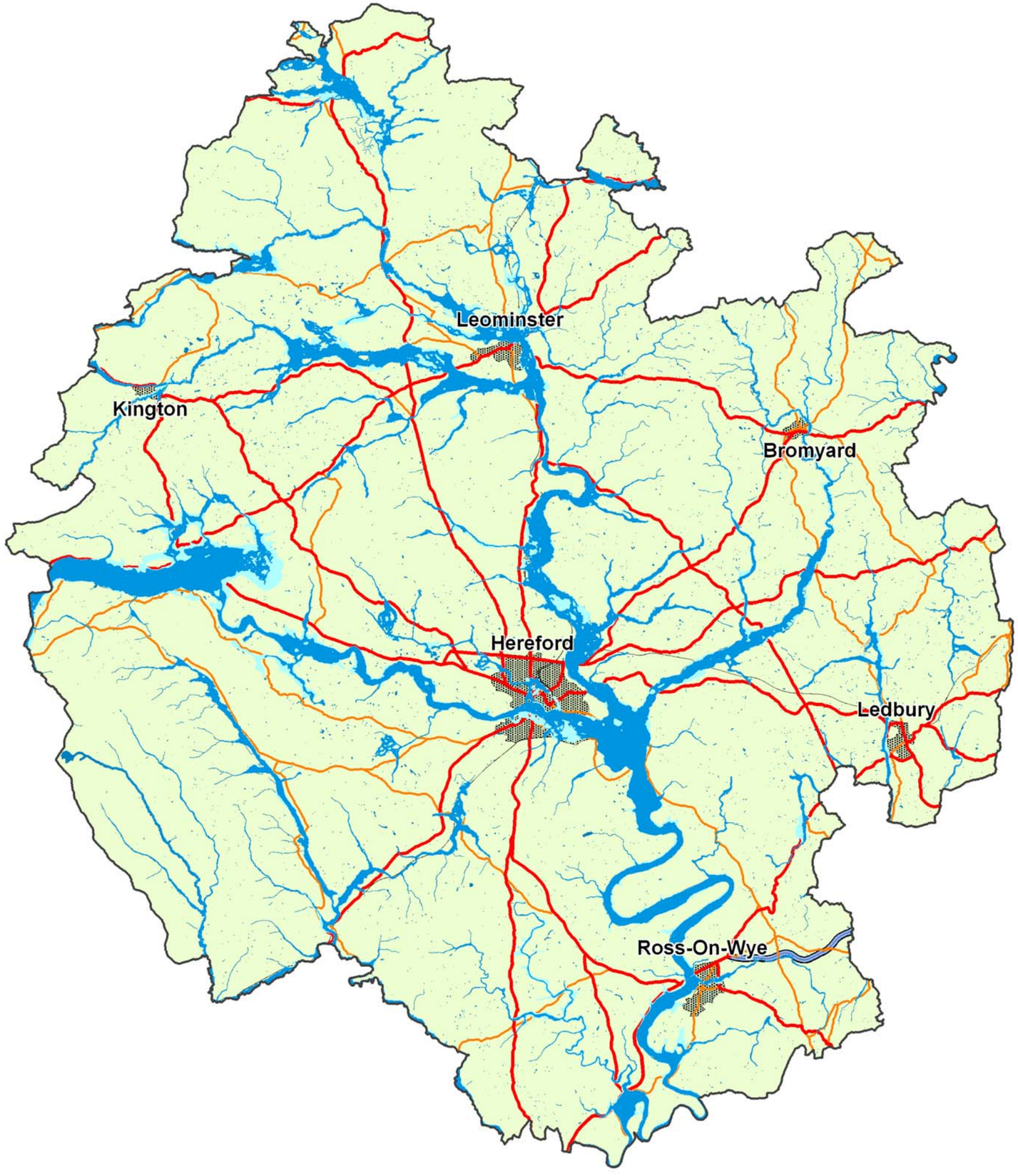
- Develop local watercourses, in conjunction with land management schemes and sustainable drainage principles to ensure robust flood risk management.
- Create and enhance riparian and wetland habitats to encourage biodiversity.
- Promote the educational resource derived from interpreting the natural, historical and cultural associations and uses of watercourses.
- Promote sustainable tourism and recreation on and adjacent to water bodies.
- Maintain and enhance the riparian elements between settlements developing coherent networks of habitat and distinct landscapes.
- Development of a wetland bird reserve (with some access for public viewing) at the former extraction site at Stretton Sugwas.

In addition to the above, hydrological opportunities at a ***local*** level include:

- Immediate access to water bodies for leisure and education.
- Creation of aesthetically pleasing environments, encouraging community cohesion and stimulating inward investment.
- Localised and instantaneous flood control and management.
- Cultural and visual landmarks and features reinforcing local distinctiveness and providing a setting for settlements and development.
- Developing a network of robust and accessible wetland and riparian habitats and sites, supporting locally important species.

Green Infrastructure Strategy

Figure 3-2 Hydrology



Settlements

Motorway

A Roads

B Roads

Rail

Water courses and water bodies

Flood Mapping

Flood zone 3
>1 percent flood risk from river

Flood zone 2
<0.1 percent flood risk from river

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NORTH

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
Hereford
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

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Topography

The Resource

3.3.7 The topography of the county is defined by the underlying geology and the action of erosion and abrasion over millennia. The topography of the ***county*** is comprised of the following key elements:

- To the east the high ridge of the Malvern Hills – nationally recognised and designated an Area of Outstanding Natural Beauty (AONB) – marks the extent of the county.
- The incised, meandering valley of the River Wye to the south of Hereford; again, recognised as an Area of Outstanding Natural Beauty (AONB).
- To the west, the Black Mountains – the eastern-most element of the Brecon Beacons National Park – rise to a high point of 694m AOD within the county.
- A central, low-lying 'bowl' defined by the river terraces of the Wye and Lugg.

At a ***district*** level, the distinct topographical features are:

- The north-east of the county is dominated by the high plateau land (av. 200m AOD) above Bromyard, Leominster and the Teme valley to the north (the 'Bromyard Plateau').
- A ridge of high land, between Kington in the north-west and Ludlow (Shropshire) to the north dominates the north-western quarter of the county (the 'Mortimer Forest').
- Amongst the broad plains and river terraces of the Wye and Lugg, are a diverse range of hills, from steep, locally distinct features such as the Dinmore Hill, Dinedor Hill, and Canon Pyon Hill to the gently undulating hills south of Hereford.
- Other distinct features include the Wye Gorge at Symonds Yat, the Woolhope Dome and the Marcle Ridge, all to the south-east of the county, the Golden Valley to the south-west and Downton Gorge on the River Teme to the north-west.

At a ***local*** level, topographical features include:

- Locally important hills and slopes, outcrops of rock and minor gorges.
- A distinct pattern of settlement on lower slopes and low-lying ground.
- A network of topographically influenced heritage assets, most conspicuously hill-top enclosures and 'fortifications'.

Issues

3.3.8 The principal issues relating to topography are:

- Recognition of the importance of the county's topographical character.
- Acknowledging that topography determines the extent of habitat, land use and development opportunities.
- Recognising the contribution of topography to local distinctiveness in relation to historical and cultural inheritance and the way people experience their environment.
- Recognising the relationship between topography and hydrological systems and sustainable water resource management, both in terms of water retention and flood prevention.
- Understanding the role of topography in influencing microclimates and local environmental factors and the development of subsequent land use planning policies.
- Topographical features may impair development and access and movement routes, increasing the amount of land used for 'hard' infrastructure.

Opportunities

3.3.9 The main opportunities afforded by the ***county's*** topography are:

- The resultant 'contained' character of the county, bounded on all sides by distinct topographical features, has a strong influence over local distinctiveness within the region and should inform development proposals.
- Recognising and responding to outstanding, nationally recognised landmarks and views from high ground around the perimeter of and within the county.

- The variation in slope, orientation and altitude presents the potential for adaptability and flexibility in land use in response to climate and environmental change.
- The variety in topographical character allows for diversity of recreational activity.
- The variation in slope, orientation and altitude presents the potential for increased biodiversity, habitat management and creation and adaptability in response to climate and environmental change, resulting in a complex mosaic of ecological components across the county.

The main opportunities afforded by topography at a ***district*** level are:

- Reinforcement of distinctive local character in and around the following areas:
    - the 'Bromyard Plateau'
    - the 'Woolhope Dome' and 'Marcle Ridge'
    - the Golden Valley
    - the 'Mortimer Forest'
- The potential to manage hydrological systems, influenced by topography, within discrete geographical units to reduce local flood risk.
- The potential to improve connectivity of habitats influenced by topography – principally upland and wetland habitats – for the benefit of biodiversity.

The main opportunities afforded by topography at a ***local*** level are:

- Use of resultant microclimates to influence sustainable development, responding to orientation and slope.
- The potential to develop local biodiversity assets in response to specific topographical distinctiveness.
- Manage and utilise resultant hydrological systems defined by topography.
- Preserve and enhance local landmarks and features that define local distinctiveness.
- Realise the potential of local topography to provide recreational and tourist facilities.

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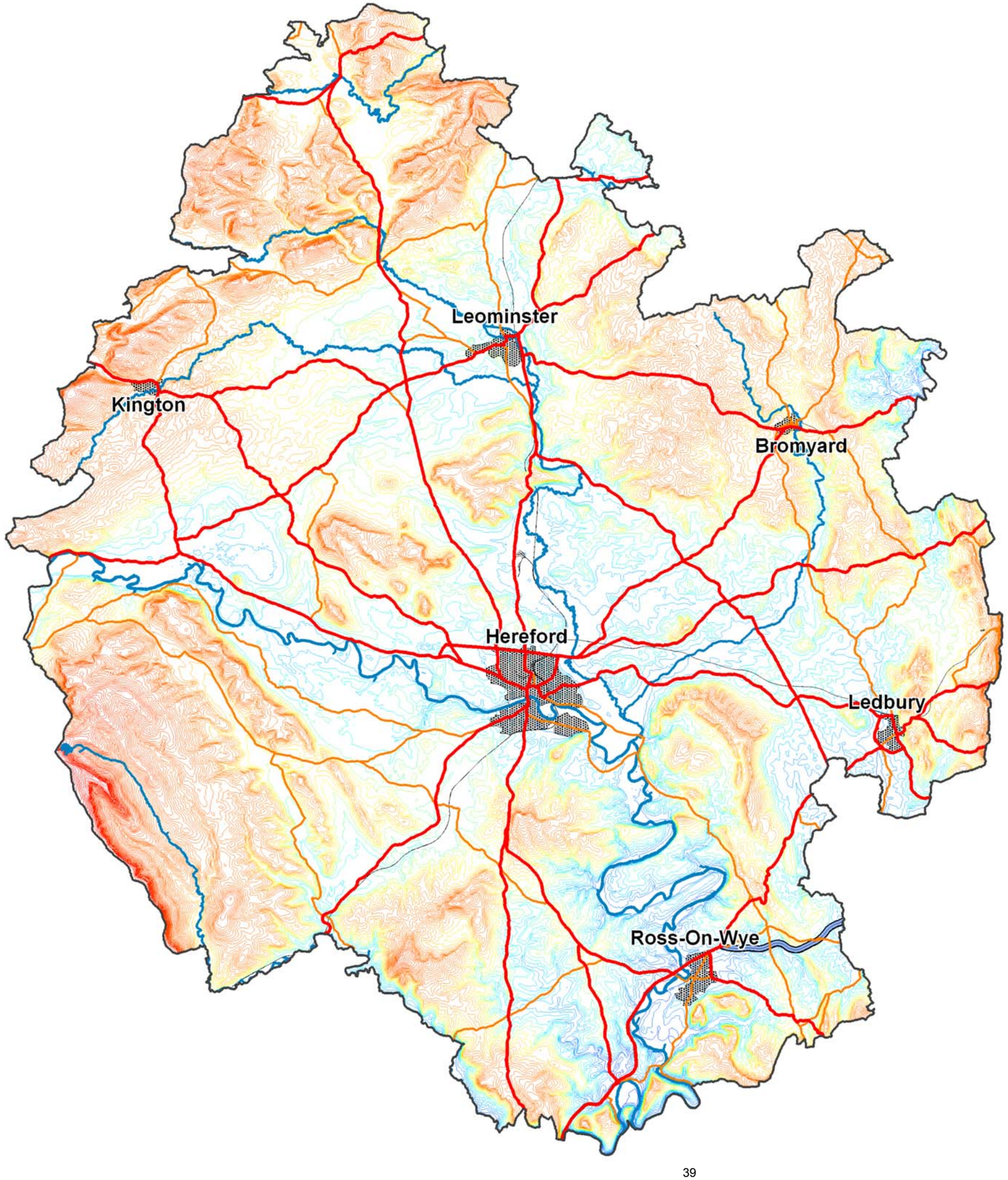
Green Infrastructure Strategy

Figure 3-3 Topography



Settlements

Motorway

A Roads

B Roads

Rail

Rivers

Topography

23 m

93 m

153 m

223 m

293 m

353 m

423 m

493 m

563 m

693 m

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Herefordshire Council
Conservation
PO BOX 4
Plough Lane
Hereford
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

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Biodiversity

The Resource

3.3.10 Biodiversity is the product of both natural and human factors; underlying geology, topography and the function of water are perhaps most influential. Value and subsequent designation and protection of biodiversity features and assets are not necessarily proportionate to the physical scale of the asset and vary greatly in size. The principal biodiversity features, assets and resources, recognised through national and international designations, within the ***county*** are:

- 4 Special Areas of Conservation (SACs)
    - Rivers Wye and Lugg
    - Downton Gorge
    - Wye Valley Woodlands
    - River Clun
- 76 Sites of Special Scientific Interest (SSSIs) distributed throughout the county, but with larger sites and conglomerations evident in upland areas, most notably the Malvern Hills, the Woolhope Dome, The Black Mountains and Dinmore Hill.
- 1021 woodland sites identified as Ancient Semi-Natural Woodland (ASNW), illustrating evidence of continuous woodland usage since at least 1600 AD; ASNW accounts for approximately 6.5% of the county land coverage.
- 3 National Nature Reserve (NNRs) exist within the county.
    - Moccas Park
    - Downton Gorge
    - The Flits

At ***district*** level, biodiversity features and assets consist of the following:

- 6 Local Nature Reserves (LNRs) have been designated within the county.
    - Dinmore Hill Woods (Queenswood)
    - Belmont Meadows
    - Tupsley Quarry
    - Broadmoor Common
    - Broadlands
    - Little Mountain Common

- 709 Special Wildlife Sites (SWSs) are dispersed across the county with marked concentrations:
    - To the north from Kington through the 'Mortimer Forest'
    - To the north-east of Bromyard
    - From Dinmore Hill, south-westward towards the Black Mountains
    - Around the Woolhope Dome
- Herefordshire Nature Trust own 51 reserves distributed around the county with concentrations east of Hereford to the Woolhope Dome, to the west of the county, north of the River Wye and to the south of Ross on Wye.
- The Woodland Trust own and positively manage for biodiversity 13 sites within the county.
- The Countryside Restoration Trust own and positively manage two farms with "wildlife-friendly and commercially viable agriculture".
- 25 UK and county priority habitats are identified in the Local Biodiversity Action Plan (LBAP). Habitat Action Plans have been prepared for the following:
    - Lowland acid grassland
    - Blanket bog
    - Arable field margins
    - Eutrophic water bodies
    - Fens
    - Floodplain grazing marsh
    - Hedgerows
    - Lowland beech and yew woodland
    - Lowland calcareous grassland
    - Lowland heathland
    - Lowland meadow and pasture
    - Lowland oak and mixed woodland
    - Managed greenspace
    - Mesotrophic water bodies
    - Traditional orchards
    - Purple moor grass
    - Quarries
    - Rivers and streams
    - Upland calcareous grassland
    - Upland heathland
    - Upland mixed ash woods
    - Upland oak woods
    - Wood pasture and parkland

- Wet woodland
- Ponds

At ***local*** level, biodiversity features and assets consist of the following:

- 56 Sites of Importance for Nature Conservation (SINCs) have been designated in and around the city of Hereford.

- Approximately twenty churchyards in the county are managed under the 'Caring for God's Acre' project, benefiting from full management plans and community support. A further twenty sites have either received some advice or have been surveyed for biodiversity value. Examples of active churchyard management exist at Weobley, Much Cowarne and Little Dewchurch.

- There are 87 Eco-schools in the county[4], nine with Green-flag status and four with 'double' Green-flag status; many will include external areas managed for ecological benefits.

- Throughout the county, a range of locally-important, rare and protected species have been recorded. In most cases there will be interdependency on a particular habitat or range of habitats; the Herefordshire Biodiversity Action Plan identifies the linkages between species and habitats, where appropriate. In addition, the Local Biodiversity Action Plan identifies 156 priority species for the county, of which the following have specific Species Action Plans:

    - Adder
    - Argent and Sable (moth)
    - Barn owl
    - Bats (15 species)
    - Black poplar
    - Dormouse
    - Grizzled skipper (butterfly)
    - High brown fritillary (butterfly)
    - Noble chafer (beetle)
    - Pearl-bordered fritillary (butterfly)
    - Tree sparrow
    - Water vole
    - White clawed crayfish
    - Wood white (butterfly)

[4] As of May 2008 (HCC web-site)

- Ancient and veteran trees are widespread across the county, although the database is incomplete. They are an important ecological, as well as historical and landscape resource.

Issues

3.3.11 The principal issues relating to biodiversity are:

- Ensuring the significance and integrity of the best biodiversity assets are protected and enhanced.
- Halting and reversing the deterioration and fragmentation of habitats of national and local biodiversity priority.
- Establishing long-term, realistic and sustainable large-scale biodiversity projects that deliver extensive benefits across the county and beyond.
- Ensuring adequate flexibility in land use policies to allow for adaptation of species and habitats to climate change.
- Identifying delivery mechanisms for the protection and enhancement of biodiversity assets at all geographic scales and ensuring that biodiversity enhancements are at the forefront of policy and decision-making.
- Recognising that biodiversity is relevant to and present in the whole county and not restricted to protected or priority species and habitats, and designated sites.

Opportunities[5]

3.3.12 The main opportunities for biodiversity in the ***county*** are:

- Reinforcing the existing networks of habitats, some identified as internationally and nationally important, to provide a framework for developing large-scale, nationally significant biodiversity projects.
- To extend the influence of internationally and nationally recognised sites and large area habitats by connection to smaller sites and areas.
- In relation to hydrological management, the establishment of large scale, functional wetland systems.

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5 *'Building Biodiversity into Herefordshire's Local Development Framework, 2009'* also produced by Herefordshire Council's Landscape and Biodiversity Team, has been used to inform this section and provides further detail on some of the specific issues relating to ecological and biodiversity assets.

- To extend and disseminate knowledge about the management of internationally and nationally important sites to smaller areas and habitats to improve the aggregated biodiversity resource more widely.

- To influence the strategic targeting and deployment of Environmental Stewardship and English Woodland Grant Scheme to foster appropriate management of key biodiversity resources.

The main opportunities for biodiversity at a ***district*** level are:

- The creation of new and enhancement of existing corridors of habitat beneficial to biodiversity. In particular, in conjunction with new and improved transport networks and large residential developments.

- The provision of new country parks and nature reserves.

- Reinforcement and creation of locally important and distinctive habitats, particularly those that support locally significant species.

- The provision of a network of habitats and sites, which are accessible to all and inform and educate.

The main opportunities for biodiversity at a ***local*** level are:

- To make existing green spaces better for biodiversity. Encouraging the implementation of management regimes and practices to improve habitats, but also introducing new features and elements into existing sites to diversify local flora and fauna.

- To ensure new development realises the best opportunities for the retention of existing biodiversity and the provision of new complimentary features, and that connections are made between new and existing small, local sites and habitats.

- To discourage the tendency to 'tidy up' neglected sites before their value and potential is properly recognised and understood.

- Use locally important sites and habitats to engage with the wider public and relate their demands and expectations into management practices.

- Adopt best management practices and techniques within Herefordshire Council to act as an exemplary model for partners and other agencies.

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Green Infrastructure Strategy

Figure 3-4 Biodiversity

Settlements

Motorway

A Roads

B Roads

Rail

Water courses and water bodies

European/National Designation

Sites of Special Scientific Interest (SSSI)

Special Areas of Conservation (SAC)

National Nature Reserve (NNR)

Local Designation

Special Wildlife Site (SWS)

Sites of Importance to Nature Conservation (SINC)

Local Nature Reserve (LNR)

Other

Ancient Woodland

Herefordshire Nature Trust Nature Reserve

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Herefordshire Council
Conservation
PO BOX 4
Plough Lane
Hereford
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

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3.4 Human Influences

Land Use

The Resource

3.4.1 Although predominantly agricultural in character certain distinct land uses can be identified as features, assets and resources within the ***county*****,** the product of ***district*** and ***local*** activities:

- The mixed agricultural land use enables adaptability and flexibility of production and can generate biodiversity and diverse commercial and recreational activity.

- Common land – a distinct features of the county – is widely dispersed with concentrations north of Kington, at the east end of the Mortimer Forest, east of Bromyard, east of Hereford and into the Woolhope Dome and east of Hay on Wye, south of the River Wye. Common land also figures significantly in relation to publicly accessible open space.

- The principal urban settlements – Hereford, Leominster, Ledbury, Bromyard, Ross on Wye and Kington – impact on surrounding landscape creating an identifiable 'hinterland'[6] and interrelationship.

- Main villages have a similar influence and contribute to local distinctiveness.

- Employment zones and areas, particularly in peri-urban locations, influence both the character of settlements and adjoining open countryside. Examples exist at:

    - Rotherwas, Hereford
    - Holmer, Hereford
    - Widemarsh/Moorfields, Hereford
    - 'Three Mills' and neighbouring trading estate, Hereford
    - Moreton on Lugg
    - Leominster Enterprise Park
    - Lion Industrial Estate and Croft Business Park, Leominster
    - Porthouse Industrial Estate, Bromyard
    - Station Trading Estate, Bromyard
    - Linton Trading Estate, Bromyard
    - Orchard Business Park, Ledbury

[6] See Urban Fringe Sensitivity Analysis Study, 2008

- New Mills Industrial and Lower Road Trading Estates, Ledbury
- The Old Wharf Industrial Estate, Ledbury
- Overross Industrial Park, Ross on Wye
- Ashburton Industrial Estate, Ross on Wye
- Haigh Industrial Estate and Alton Business Park, Ross on Wye
- Hatton Gardens Industrial Estate, Kington

- Landfill, waste sites and energy production sites currently have a limited impact on the character of the county, but may contribute further in the future.

- Quarrying and extractive industries influence both areas with hard rock deposits and aggregate materials, most notably at:

  - Wellington Quarry, sand and gravel (working)
  - Leinthall Earls, hard rock (working)
  - Perton, hard rock (working)
  - Lugg Bridge, sand and gravel (not working)
  - Shobdon, sand and gravel (not working)
  - Stretton Sugwas, sand and gravel (worked out)
  - Nash Quarry, hard rock (not working)

- Brownfield land is not a common feature of the county but some naturally and inevitably exists within the main settlements.

Issues

3.4.2 The principal issues relating to land use are:

- Preserving a diverse pattern of land use with the flexibility to adapt to both market and climate changes.

- Maintaining an appropriate balance between developed land, both residential and employment, and open countryside, particularly on the edge of settlements.

- Preserving traditional land uses that are outside ordinary description, in particular the diversity and quality of common land within the county.

- Where necessary, identifying alternative uses for land that has become disassociated from its traditional function.

- The need to carefully identify appropriate sites for waste disposal and landfill and preparedness for the calls for alternative energy production sites.

Opportunities

3.4.3 The main opportunities relating to land use in the ***county*** are:

- The potential for sites suitable for alternative land uses that make a positive contribution to the wider green infrastructure agenda and preserve existing assets and features.
- The identification of sites suitable for sustainable waste management and alternative energy production.
- Introducing and increasing the sustainability considerations into all land use and land management practice.

The main opportunities relating to land use at a ***district*** level are:

- Preserving and enhancing traditional land uses that reinforce local distinctiveness.
- Developing and maintaining the green infrastructure resources present in local employment areas and working with employers and business to realise the 'value added' inherent in a pleasant and functional working environment.
- Making linkages between areas of non-traditional land use to ensure connectivity for both people and biodiversity. Developing movement and transport corridors, particularly between employment and residential areas that encourage the reduction of individual carbon footprints (considered further in 3.4.6 below), but remain inextricably linked with land use patterns.

The main opportunities relating to land use at a ***local*** level are:

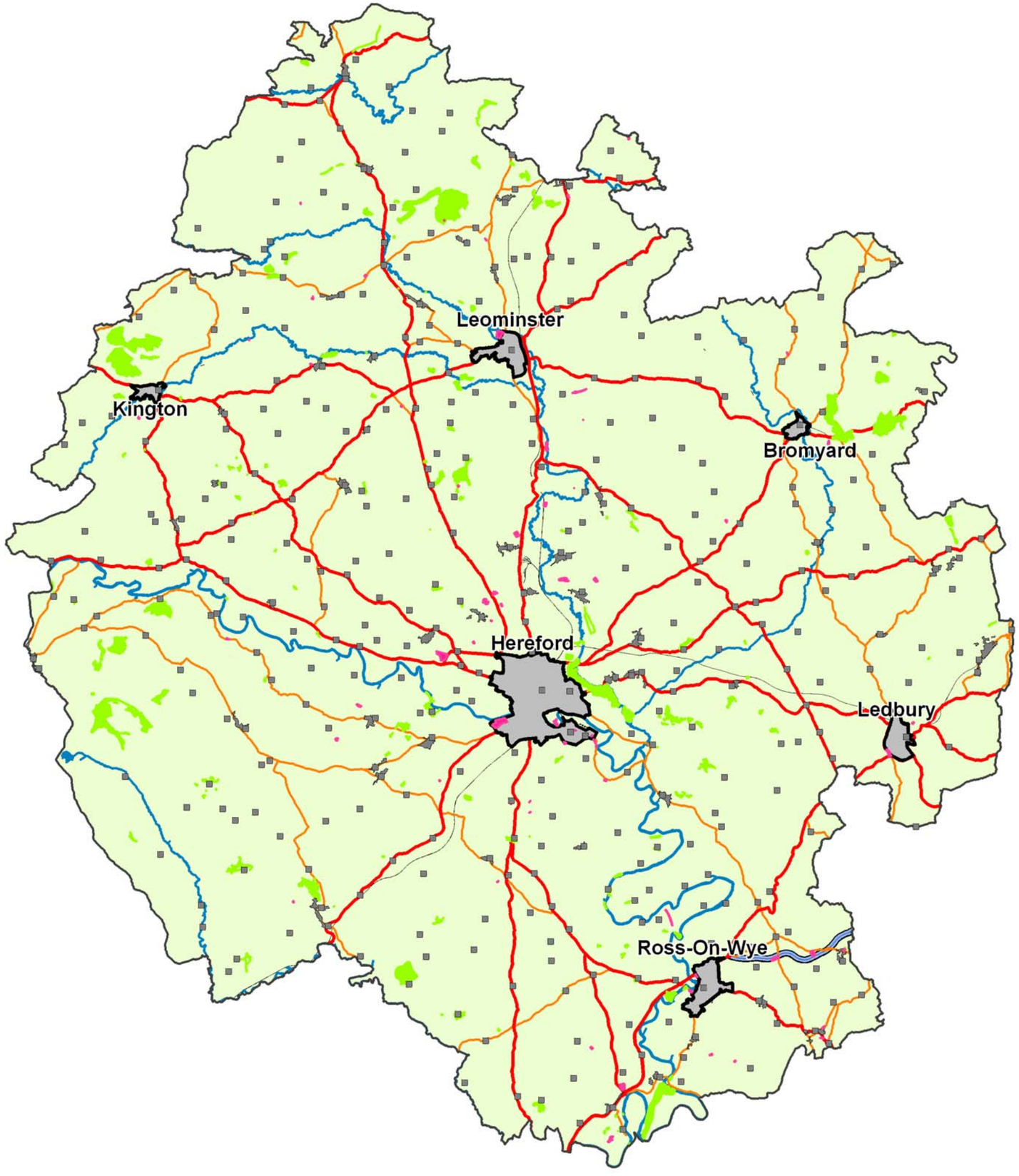
- The identification and preservation of areas of land use that make a positive contribution to local distinctiveness. Conversely, identifying and managing areas of land use that are currently detrimental to local amenity and the wider green infrastructure network should be a local priority.
- The preservation and positive management of areas of non-traditional land use that make a positive contribution to local distinctiveness.
- Reinforcement of distinctive patterns of settlement and land use, particularly on the edge of settlements, that best strengthen the local

character of urban fringe landscapes, balanced with the enhancement of fossilised historic landscape elements.

- Ensuring that ‘redundant’ land is put to the best and most profitable use, considering first how contributions can be made to local green infrastructure and amenity.

Green Infrastructure Strategy

Figure 3-5 Land Use



Settlements

Motorway

A Roads

B Roads

Rail

Rivers

Land use

H1 Urban Settlement Boundary

H4 Village Settlement Boundary

Common Land

Landfill

Small Settlements

Herefordshire Council

SCALE 1:240,000

NORTH

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
Hereford
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

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Access & Movement

The Resource

3.4.4 The principal transport and movement corridors, both vehicular and non-vehicular, within the ***county*** are:

- The M50 motorway east of Ross on Wye and to the south of Ledbury.
- The principal north-south railway route from the north-west coast, via Shrewsbury and Ludlow, through Leominster and Hereford and on to Abergavenny and south Wales.
- The west-east railway route from Hereford through Ledbury and Colwall and on to Malvern, Worcester and Birmingham.
- The strategic road network, principally centred on Hereford and linking the market towns.

  From Hereford:

  - A49 north to Leominster and beyond
  - A49 south to Ross on Wye
  - A438 east to Ledbury
  - A465 north-east to Bromyard
  - A438 west to mid-Wales
  - A465 south-west to Abergavenny
  - A466 south to Monmouth

  From Leominster:

  - A44 west to Kington and on to mid-Wales
  - A44 east to Bromyard and on to Worcester

  From Ledbury:

  - A449 south-west to Ross on Wye

  From Ross on Wye:

  - A40 south-west to south Wales

- The Offa's Dyke National Trail runs to the west side of the county often following the original line of the historic border between England and Wales.

- The nationally-promoted cycle network (Sustrans) routes 44 and 46 cross the county from north to south and west to east respectively. Other nationally promoted byways exist from Leominster to Ledbury, south of Ross on Wye, from Hereford to Hay on Wye and through Kington.

At ***district*** level, access and movement features and assets consist of the following:

- The local road network of A and B class roads principally linking the main towns and villages and some minor settlements. Dominant topographical features and watercourses determine many routes and roads. Broad verges contained by dense hedgerows form extensive wildlife corridors along many roads.

- The promoted, long-distance recreational routes circumnavigate and cross the county. They include:

    - The Herefordshire Trail – circumnavigating the county and passing through Ross on Wye, Ledbury, Bromyard, Leominster, Kington and the Golden Valley.
    - The Wye Valley Way – following the route of the river from Hay-on-Wye (Powys) in the west, through Hereford and Ross-on-Wye and south to Chepstow (Monmouthshire).
    - The Mortimer Trail – passing through the 'Mortimer Forest' area in the north west of the county from Kington to Ludlow (Shropshire).

- A network of redundant transport routes cross the county including;

    - The Kington, Leominster and Bromyard to Worcester railway
    - Hereford to Ross-on-Wye Railway
    - Dismantled railways through the Golden Valley and east of Kington
    - The abandoned Hereford to Gloucester (via Ledbury) canal and a short section of abandoned canal north of Leominster.
    - Pontrilas to Hereford
    - A number of old tramways, predating the construction of railways, also cross the county or are locally recognisable.

- The public right of way (PRoW) network throughout the county provides a generally good level of access to the countryside[7].

- Navigation on the River Wye has formed an historic transport corridor for many generations.

[7] Reference should be made to the Rights of Way Improvement Plan (RoWIP)' for the county, which recognises deficiencies and opportunities for improvement.

At a ***local*** level, access and movement corridors make the following contribution:

- The local road network is derived from historic settlement patterns creating a distinct, but often encumbered highway system. This is particularly marked in, and immediately adjacent to the main towns and to the centre of Hereford. Verges contained by dense hedgerows (many rich in flora and fauna), accompany many of the minor roads in the county.

- The network of PRoWs provide for immediate access to open space and the wider countryside and contribute to local distinctiveness.

- The features and characteristics of the PRoW network – bridges, stiles, fords, hedgerows and lightly managed paths – contribute to local biodiversity and allow for the dispersal and migration of species.

- Fifteen locally promoted walks and access initiatives ('Miles without Stiles') exist within the county, further increasing the value of the PRoW network and its' contribution to green infrastructure.

- Open Access Land[8] is not prevalent in the county; however, there is a marked conglomeration of sites to the north-west, in the vicinity of the 'Mortimer Forest'.

Issues

3.4.5 The principal issues relating to access and movement are:

- A high dependency on motorcar access throughout the county, using a generally slow and indirect series of routes constrained by geographic features.

- The widely-dispersed pattern of settlement, in combination with historically aligned local roads, does not allow for an effective public transportation system for much of the county.

- A generally adequate network of main roads serves the county, although a limited number of crossing points over the River Wye constrain movement to and from the south and west of the county.

- The M50 can be seen to provide fast and efficient access to the south of the county, but contributes to general levels of noise and airborne

[8] As defined by the Countryside and Rights of Way Act, 2000

pollution, and severs a small portion of landscape from the rest of the county.

- Only four railway stations serve the county; Hereford, Leominster, Ledbury and Colwall.
- The west of county is poorly provided for in relation to both road and rail networks, on the one hand increasing the sense of rural remoteness, on the other limiting opportunities for economic investment and subsequent contributions to the green infrastructure network.
- Perceived as an intensely rural county, Herefordshire, in reality, has a limited provision of open access land and much of the central, lowland areas are poorly served by the PRoW network.

Opportunities

3.4.6 The main opportunities for access and movement in the ***county*** are:

- The relative ease of access from the major settlements to open countryside via a network of major and minor roads and the PRoW network.
- Recognising and delivering on the potential biodiversity asset that the transport network presents in the form of broad corridors across the county, allowing for the migration and dispersal of plants and animals.
- The opportunity for the transport network to incorporate multifunctional environmental infrastructure – particularly improved water management – should be explored and realised.
- The aesthetic qualities of moving through the landscape should be realised and benefit from careful assessment, planning and design of both new and existing transport routes. It is particularly important to recognise the added value that an enhanced visual environment can bring to economic and social development.
- Continuing to promote and develop transport networks that depart from a traditional dependency on motor vehicles.

The main opportunities for the access and movement network to contribute to green infrastructure at a ***district*** level are:

- The delivery of the RoWIP to address shortfalls in access provision and ensure the highest standards of PRoW where the greatest demand is apparent.

- Ensure that all transport networks contribute to local distinctiveness and make connections between desirable natural and manmade destinations.

- Manage redundant transport elements to best provide for alternative and recreational movement and for the dispersal of flora and fauna.

- Ensure that the interface between settlements and the wider countryside is treated with the highest standards of design and that access to the rural environment, via all modes of transport, is welcoming and apparent.

- The maintenance of transport corridors to both preserve local distinctiveness, through the retention of historic elements and characteristics, and to enhance the benefits for biodiversity.

- Many of the major roads in the county are accompanied by broad verges, forming extensive wildlife corridors that should be positively managed, particularly in proximity to areas of known biodiversity and aesthetic value, and at the interface with settlements.

The main opportunities for access and movement to contribute to green infrastructure at a ***local*** level are:

- The improvement of the local network of rights of way, paths and connecting open spaces that encourage non-mechanised transport that benefits the local environment.

- The creation of new networks of rights of way and connecting open spaces that build on and contribute to existing elements of green infrastructure, including historic routes and redundant transport networks.

- The identification and promotion of existing and new connected routes that benefit both recreational and commuter users; emphasis should be placed on identifying connections between employment areas and residential areas and the creation of ‘time-efficient’, safe and aesthetic movement corridors.

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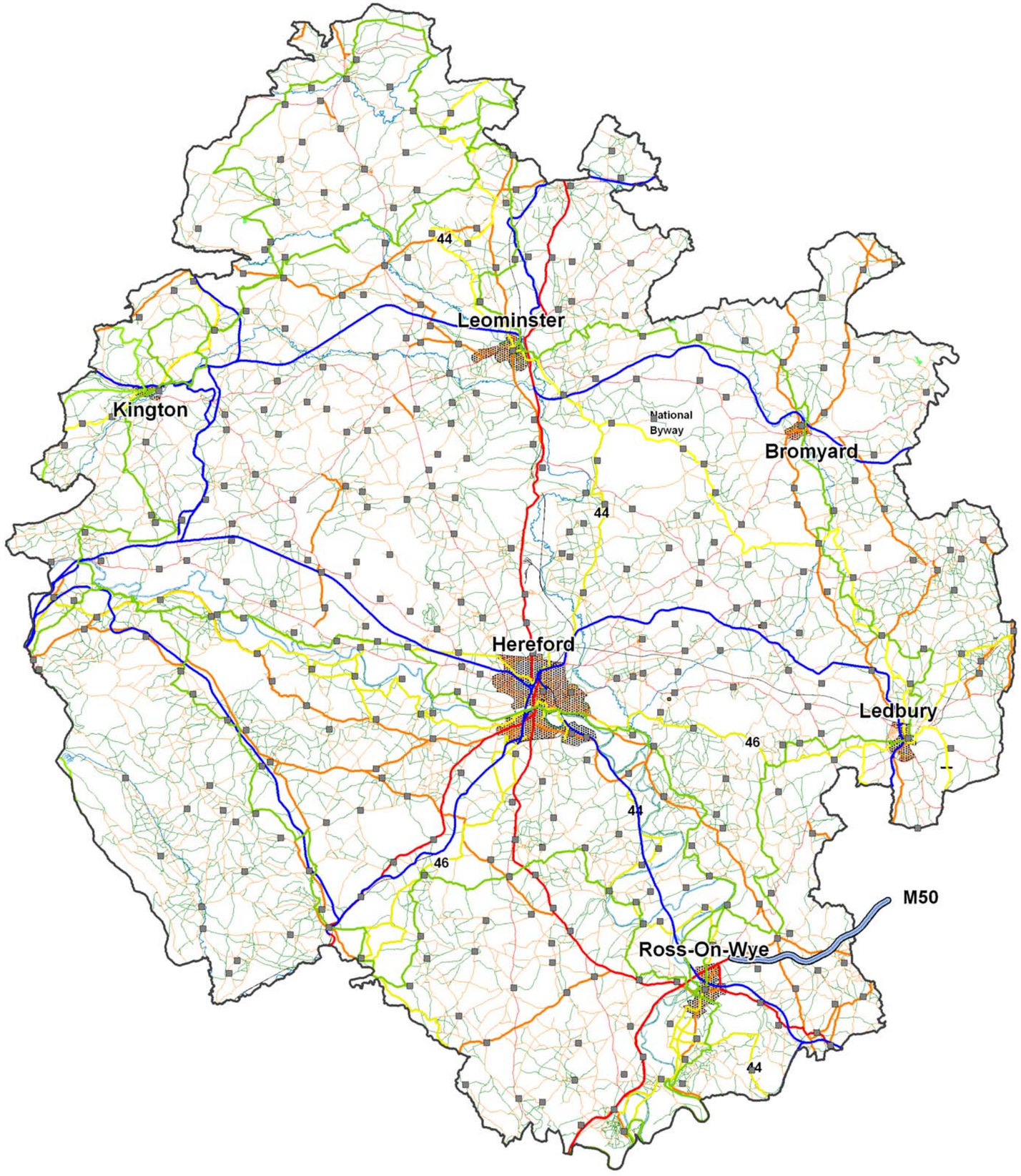
Green Infrastructure Strategy

Figure 3-6 Access & Movement



Settlements

Motorway

A class roads

A class trunk roads

B class roads

Rail

Rivers

Public Rights of Way Network

Long distance walks

Foothpaths, bridleways, byways

National Cycle Network

National Byways and SUSTRANS trails

Highways Network

Classified and unclassified roads

Disused Transport Network

Canal, rail and tramway

Herefordshire Council

SCALE 1:240,000

NORTH

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
Hereford
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

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Archaeology, Historical & Cultural

The Resource

3.4.7 The county is rich in archaeology and historic features and elements of national and local significance; in fact the entire county has, at some time, been touched by human activity. The principal archaeological, historical and cultural resources within the ***county*** are represented by a mixture of earthworks, buried assets, buildings and structures, patterns of land use and associative features from a wide range of periods:

- A tangible sense of antiquity pervades the county with the character of the built, farmed, riparian and silvicultural landscapes dominated by historic elements[9]. Important areas of identifiably ancient character exist to the south-west of the county, below the Black Mountains and in localised areas across the county.

- 266 Scheduled Ancient Monuments (SAMs) are distributed across the county with notable clusters to the north of Hereford and to the west of the county.

- Across the county 5833[10] buildings and manmade structure have been 'listed', including 127 considered to be of the greatest national importance and recorded as Grade I. Most prominent amongst these are Hereford Cathedral, Goodrich Castle, a variety of churches (including a number of 12th and 13th century examples of the 'Romanesque' style), many substantial country houses, including Berrington Hall, Croft Castle and Hampton Court to name but a few.

- The county is well endowed with historic designed landscapes, many enclosing large areas of parkland, 24 of which are included on the English Heritage *Register of Parks and Gardens of Special Historic Interest*. Noteworthy examples include Eastnor Castle to the east, Berrington Hall north of Leominster by Lancelot 'Capability' Brown, Moccas Court, Croft Castle and Eywood to the west and north. Foxley and Downton Castle represent the ideological foundation of the '*Picturesque'* movement of landscape design.

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9 The historic landscape is described in the *'Herefordshire Historic Land Characterisation Study (unpublished)*

10 Source: English Heritage, 'Listed Buildings on Line', Herefordshire District (April 2009)

- The nationally-important Anglo-Saxon boundary between England and Wales, Offa's Dyke, lies along the western side of the county and forms the basis of the Offa's Dyke National Trail referred to in 3.4.4 above.

- The landscapes and activities in the Wye Valley and the north-west of the county also played a significant role in the establishment of the '*Picturesque'* movement. More generally the landscape of Herefordshire has stimulated the production of music, art and poetry across generations.

At ***district*** level, historical features and assets consist of the following:

- A network of historic routes including Roman roads, holloways, tram and railway lines, canals, tracks and paths.

- Clusters of associated archaeological sites provide evidence of wider landscape occupation and settlement in the county, notably to the north of Hereford in the Lugg valley and to the south of the city below Dinedor Hill.

- Of particular note within the county are the number and distribution of hill-top enclosures or 'hill forts', with fine examples at Credenhill, Sutton Walls, Risbury, Croft Ambrey and Thornbury.

- Historic land use and enclosure patterns still persist and contribute to local distinctiveness and biodiversity. Most notable are the presence of rich soils and fertile meadows adjacent to the major rivers (the product of traditional water meadow management), the small scale enclosures with species-rich hedgerows on steeper sloping lands to the north, west and east of the county and remnant common land, mainly on higher ground.

- Locally-produced food still plays a significant part in the cultural traditions of the county, with cider and beer, beef and game and soft fruits, apples and pears being of particular importance. Hop production is still a significant feature of the landscape in parts of the county, particularly to the north, and has a close association with traditional, vernacular farmsteads. The versatility of the land in Herefordshire, its productivity and ease of cultivation, is marked by the continuous pattern of occupation.

At ***local*** level, historic features and assets include the following:

- Across the county, 64 settlements or parts of settlements are recognised for their architectural and historic quality and significance, through designation as Conservation Areas.

- In addition to the buildings recognised through 'listing', a large number of buildings of local importance can be identified that contribute to local distinctiveness and represent the vernacular. Of particular interest are the distinct patterns of farm buildings and complexes within the county[11]. These locally important buildings often have extensive, historically distinct settings that provide open space and mature habitats. Many eighteenth and nineteenth century cottages and associated landscape features have been subsumed into urban extensions providing valuable historic and cultural reference points. Where these locally distinctive buildings still survive in open countryside, they often represent a much appreciated, idealistic rural vernacular.

- 178 Unregistered Historic Parks and Gardens have been identified across the county and have significance at a local level; these vary from medieval parks of many hundreds of hectares to intimate garden spaces[12]. Again, continuity of land use has often resulted in mature habitats, supporting increased biodiversity.

- The historic and ongoing production of hops and fruit – principally apples and pears – generating localised areas with a distinct pattern of orchards and associated buildings.

- Although not always immediately apparent, Herefordshire has a rich industrial heritage. In fact, much of the stimulus for the '*Picturesque'* movement of the late eighteenth and early nineteenth centuries was gained from the industrial activities in the county; most notably in the Wye gorge and on the River Teme at Downton.

Issues

3.4.8 The principal issues relating to the historic, archaeological and cultural environment are:

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11 A recent (2008) English Heritage funded assessment of traditional farmsteads, their distinctive characteristics and distribution has been carried out in the county.

12 Whitehead, D. (2001) *A Survey of Historic Parks and Gardens in Herefordshire*

- Preserving the historic and archaeological environment and record in a way that ensures the context and value of the resource is properly understood.

- Ensuring an appropriate balance between developed land, both residential and employment, and the historic environment, particularly on the edge of settlements, is maintained.

- Ensuring that the historic and cultural environment is seen not as a constraint to development, but as a driver; that the digest of human activity in the county is used to inform our current and future activity.

- Recognising the mutual benefit of managing both the natural components and the historic features of our environment and preventing a perceived dominance of one aspect over another to ensure a truly sustainable future for our past

- Preserving traditional land uses and patterns of enclosure that, not only create areas of local distinctiveness associated with known historic features and elements, but also preserve the most mature habitats and landscape features. Of particular importance is the recognition and preservation of the context of heritage assets through the understanding and protection of open spaces and historic boundaries around sites.

- Development and future land management must ensure that the heritage environment of the county is made apparent and interpreted in imaginative and dynamic ways that help stimulate economic investment and social cohesion.

Opportunities

3.4.9 The main opportunities for the historic environment in the ***county*** are:

- Ensuring that the significance of the historic and cultural profile of Herefordshire is recognised both nationally and across the region.

- Identifying and interpreting the key aspects of the county's historic environment, and the pattern of human development and interaction within the environment, and using them as strategic drivers for change to ensure an ongoing robustness of cultural and social structure.

- Making historic sites and features accessible, bringing people into close contact with their heritage, whilst allowing interaction with the natural environment and promoting healthy activity.

- The historic pattern of land use and settlement should inform our future development and management of the land across the county, benefiting from hindsight to avoid past errors of judgement.

The main opportunities for the historic environment at a ***district*** level are:

- An understanding of the evolution of human activity in response to the natural environment both reinforces local distinctiveness and provides the key to sustainable future development, settlement and land management.
- Historic connections and transport routes between settlements should be preserved and enhanced, securing both the surviving heritage asset and the opportunity for migration of flora and fauna in addition to human movement.
- Large areas with distinct historic land use patterns should be protected and reinforced; for example, the areas of known medieval and earlier field patterns, such as in the Olchon Valley, or areas with concentrations of ancient semi-natural woodland, parklands and wood pasture.

The main opportunities for the historic environment at a ***local*** level are:

- Using the historic pattern of spaces within settlements to inform future development, ensuring that significant areas of open space and green infrastructure, whether publicly or privately owned, are preserved and enhanced.
- Listed and locally-important buildings are primarily considered in light of their setting and context when considering new development and change to best retain the remaining mature habitats and open spaces within our towns.
- Where opportunities arise, the management of our historic designed landscapes should be a local priority, conserving both the best aesthetically pleasing components of our landscape, but also protecting mature and maturing habitats, beneficial to local biodiversity.
- Encourage those local activities that best preserve the diverse land use, particularly in relation to agricultural and industrial heritage, that most benefit the local environment.
- Realise the potential that historic sites and features present as means for physical and intellectual access to the wider local environment.

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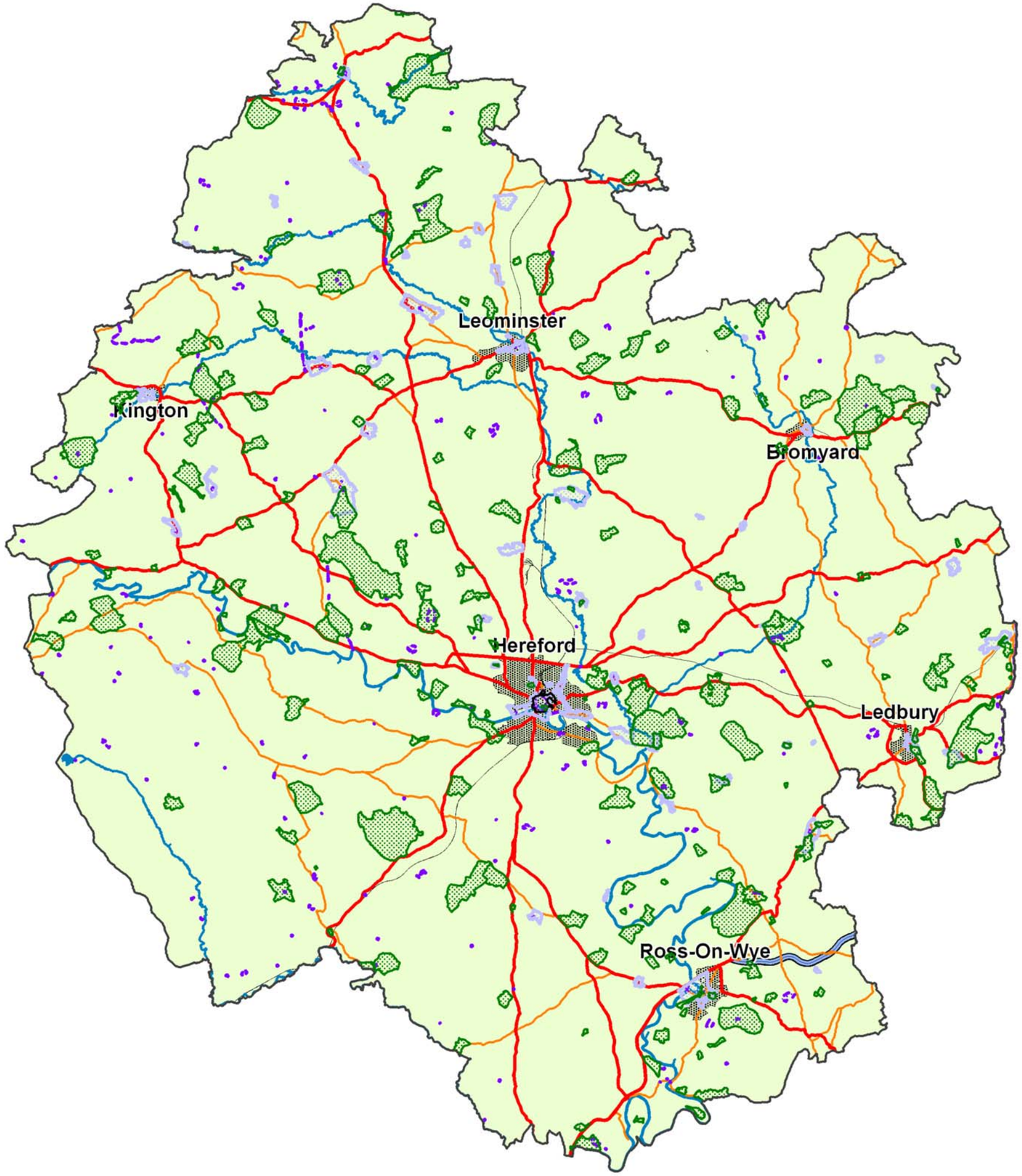
Green Infrastructure Strategy

Figure 3-7 Archaeology



Settlements

Motorway

A Roads

B Roads

Rail

Rivers

Archaeology & Historic Features

Conservation Area

Area of Archaeological Interest (AAI)

Scheduled Ancient Monument

Historic Parks & Gardens

Herefordshire Council

SCALE 1:240,000

NORTH

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
Hereford
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

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Landscape Character[13]

The Resource

3.4.10 Landscape character can be described at a range of scales and enables focus on a particular area or location; the context of that area can then be understood in its own right or in relation to adjacent areas. Landscape character assessment does not make comparative judgements about quality, and is most effectively used to describe what is important about the places we live in, what makes them distinctive and, ultimately, what we value about them. Landscape character does not respect administrative boundaries. The assessment of landscape character is both a component of the wider green infrastructure asset, and a product of the quantity or lack of environmental assets. The landscape character of the ***county*** can be understood in the context of the region by considering the *National Character Areas* described in the *Character Map of England*[14] [Figure 3-9]:

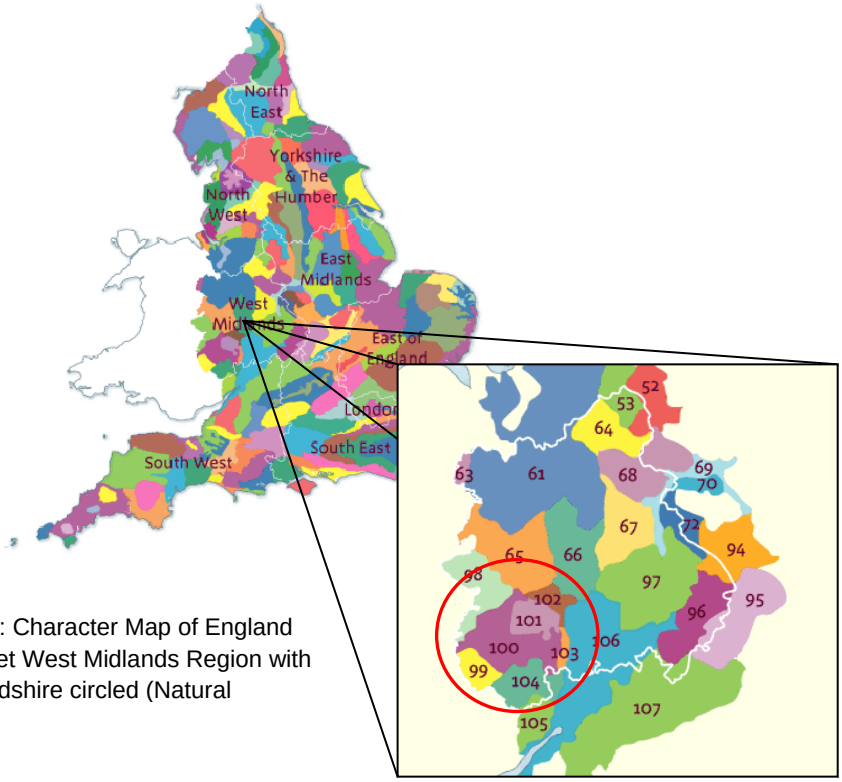

Fig. 3-9: Character Map of England and inset West Midlands Region with Herefordshire circled (Natural

13 This section of the Green Infrastructure Study and subsequent Strategy acknowledges and attempts to adhere to the principles established in the European Landscape Convention and the subsequent '*European Landscape Convention - A Framework for Implementation; October 2007*' produced by Natural England, describing the UK Governments' proposed compliance with the provisions of the convention.

14 Character Map of England, Volume 5: West Midlands, Countryside Agency 1999

- NCA98 – Clun & North West Herefordshire Hills: a rolling rounded upland landscape to the north west of the county, with narrow valleys, a pattern of small, irregular woods and fields and distinct heritage features in the form of hillforts, castles, nucleated villages and farmsteads.

- NCA99 – Black Mountains & Golden Valley: a landscape dominated by north-south orientated ridges and valleys reinforcing the sense of the border between England and Wales, the Black Mountains particularly standing as a bastion on the edge of the county. The slow passage of time is marked by the remnants of historic field patterns, woodland, castles and churches, settlements and farmsteads.

- NCA100 – Herefordshire Lowlands: the central 'bowl' of the county is made distinct by the wide river valleys of the Wye and Lugg, and intensive, but historic arable and pastoral land use, frequent orchards, the deep, rich, pink soils, scattered settlement pattern and 'manorial' dominance of ownership.

- NCA101/102 – Herefordshire Plateau & Teme Valley: a gently rolling plateau landscape in the north east of the county dissected by small valleys and marked by abrupt edges to adjoining river valleys. A sparsely populated landscape of small villages and farmsteads, and mixed land use.

- NCA103 – Malvern Hills: a narrow ridge of high ground marking the eastern edge of the county and a prominent landmark from all directions. The landscape retains a bucolic outstanding beauty with contrasting open commons on the high ridges, extensive woodland blocks and a mixed, small-scale agricultural land use.

- NCA104 – South Herefordshire & Over Severn: a fertile, undulating landscape with extensive arable farming with large to medium sized fields, prominent hilltops to the north and the deeply incised Wye valley and gorge to the south.

- The landscapes, including the physical, social and environmental activities, of the Malvern Hills and the Wye Valley are recognised as nationally important and designated Areas of Outstanding Natural Beauty.[15]

[15] Details of the special qualities and characteristics of the two AONB and management policies for the areas can be found in the respective, adopted/developing management plans: Malvern Hills AONB Management Plan, 2009, Wye Valley AONB Draft Management Plan, 2009

At ***district*** level landscape character has been assessed and recorded in the Herefordshire Landscape Character Assessment, 2004 and is best described by the twelve Sub-Regional Character Areas and the twenty-two Local Landscape Types[16] identified in that study [Figure 3-9].

- In the main, the Sub-Regional Character Areas provide more detailed analysis of, and greater definition to, the boundaries of the National Character Areas. Subtle variations and sub-divisions of landscape areas to the east of the county recognise local distinctiveness.

- The following elements are prominent in the landscape character of the county:

    - Traditional orchards
    - Broadleaved woodlands on hill tops and valley sides
    - The distinctive 'waterscapes' of the Wye, Lugg and Arrow river valleys
    - Mixed pastoral and arable farming
    - Prominent high ground to the peripheries of the county
    - A diversity of vernacular building styles and materials
    - Traditional and historic hedgerows
    - Mixed pattern and variation in field size, from the broad open meadows of the river valleys and open commons of upland areas, to dense, organic patterns of ancient field systems and assarted land
    - Clearly identifiable dispersed settlements, both linear and nucleated, with clear connections with the wider rural environment
    - Historic estates and parklands with associated large residences and numerous ancient trees

The Herefordshire Landscape Character Assessment is further subdivided into 'Landscape Description Units' (LDU), defining areas considered to be of distinct local character, and a finer level of assessment referred to as 'Land Cover Parcel' (LCP). At a ***local*** level landscape character assessment has identified:

- Distinct and locally important patterns of settlement and land use, features and elements considered as locally important or significant, including particular buildings, structures, trees and other natural features.

[16] Detailed descriptions of Sub-Regional Landscape Areas and Local Landscape Types are given in the *'Herefordshire Landscape Character Assessment, 2004'*.

- Urban areas are not described in the Herefordshire LCA, but the townscapes of Hereford and the five market towns are being analysed through a process of Rapid Townscape Assessment, focussing primarily on the historic development and character of all areas of the settlements.[17] Rapid Townscape Assessments have identified important green spaces within settlements.

- Specific local sites and areas that help determine the physical and social components, which contribute to local distinctiveness and sense of place.

- Areas where the transition between urban and rural landscapes are pronounced or subtle and whether this transition should be modified, protected or enhanced.

Brief landscape character descriptions of the setting of Hereford and each of the five market towns has been produced in conjunction with the Urban Fringe Sensitivity Analysis, providing specific local context and is reproduced at Appendix A.

Issues

3.4.11 The principal issues relating to landscape character are:

- The conservation and enhancement of local distinctiveness and character, and the avoidance of homogeneous management policies and prescriptions for areas of landscape at all scales.

- The need to recognise the components of the landscape that are valued by local people, and for what purposes.

- Realising and resolving conflicting aspirations for how the landscape should be managed and used that do not erode or compromise the character and qualities of the landscape.

- Measuring both the direction and rate of change in landscape character and quality, and predicting the ability of landscapes to adapt to new uses and functions, particularly in the face of climate change. The current Landscape Character Assessment should be seen as a 'benchmark' on which to base future study and assessment. At the national level, the

[17] The programme of Rapid Townscape Assessment is funded by English Heritage and is being produced in support of the developing LDF.

Countryside Quality Counts (CQC)[18] study has monitored changes in the underlying condition and quality of the English landscape within the framework of National Character Areas. The CQC approach is based on evaluating the magnitude of change (assessed as 'stable' or 'changing') and then its direction (assessed as 'consistent' or 'inconsistent') with the vision for the National Character Area[19]. Table ? shows the conclusions for the Herefordshire NCAs.

- Ensuring that landscapes, of all types and in all conditions, are recognised in policy and decision-making, and that appropriate measures are taken to protect, enhance or restore all landscapes.

- The recognition, through landscape assessment, of important views and vistas, skylines and outstanding features and elements, both natural and built[20].

- Where clear contrasts between urban and rural areas exist, it will be essential to determine whether the experience is either positive or negative and the approach to managing these interfaces is carefully considered.

[18] CQC is a national assessment programme that has been running since 1990, assessment and analysis is now made by the University of Nottingham. The work is sponsored by Natural England in partnership with DEFRA and English Heritage.

[19] The combination results in each NCA being allocated to one of four categories; maintained, enhancing, neglected or diverging.

[20] A project recently carried out for the Malvern Hills AONB has developed a methodology for the assessment of important views and likely impacts of change; *'Malvern Hills AONB Views Project, 2009'*.

Table 3-1: CQC results for Herefordshire National Character Areas in Herefordshire

NCA	Assessment	CQC Indicator
98: Clun & North West Herefordshire Hills	Maintained	• **Trees & woodland** • **Settlement & development** • Semi-natural habitats • River & coastal
99: Black Mountains & Golden Valley	Maintained	• **Trees & woodland** • **Settlement & development**
100: Herefordshire Lowlands	Neglected	• Boundary features • **Agriculture** • Historic features
101/102: Herefordshire Plateau & Teme Valley	Neglected	• Boundary features • **Agriculture** • Semi-natural habitats • Historic features • River & coastal
103: Malvern Hills	Maintained	• **Agriculture** • **Settlement & development** • Historic features
104: South Herefordshire & Over Severn	Maintained	• **Settlement & development** • Semi-natural habitats • Historic features • **River & coastal**

Opportunities

3.4.12 The main opportunities arising from the recognition of significance of landscape character across the ***county*** are:

- Continuing protection and enhancement of the areas of the county recognised for their outstanding natural beauty and the further development of policies and objectives to secure their enduring landscape significance.

- The further protection of landscape features and elements synonymous with the rural and traditional agricultural heritage of the area that contribute to the distinctiveness of the county.
- Developing policies and management principles that recognise and adopt the approach that ‘all landscapes matter’.
- Using landscapes as a tool to engage with the public and stakeholder groups in decision-making and place-shaping.
- Continued analysis of landscape character and changes in landscape to promote and enable a proactive approach to landscape management.

The main opportunities arising from the recognition of significance of landscape character at a ***district*** level are:

- Developing policies and management practices that seek to protect and enhance the components and features of the landscape that create local distinctiveness.
- Identifying distinct patterns of landscape character and distributions of landscape elements that make positive contributions and connect green infrastructure within the county. Of particular interest may be the identification of the following landscape types and their positive management to preserve distinctive areas of the county:
    - Orchard landscapes
    - Meadow landscapes
    - Floodplain and wetland landscapes
    - Woodland landscapes
    - Commons and moors landscapes
    - Parkland and estate landscapes
- Recognition of areas with distinct vernacular architecture, grain, pattern and scale of settlement that contribute to landscape character and should be protected or enhanced and used to inform new development.

The main opportunities arising from the recognition of significance of landscape character at a ***local*** level are:

- Identifying, protecting and creating cultural and visual landmarks and features, reinforcing local distinctiveness and providing a setting or reference point for settlements and new development.

- Creating aesthetically-pleasing environments, encouraging community cohesion and stimulating inward investment.
- Promoting an understanding of the historic origins of landscapes and using that understanding to protect and enhance local character, locally important sites and features, and locally significant and distinctive build styles and settlement patterns.
- Using Landscape Character to inform and guide adaptation to climate change, for example selection of localities for wetland re-creation or woodland planting.

Green Infrastructure Strategy

Figure 3-9 Landscape Character

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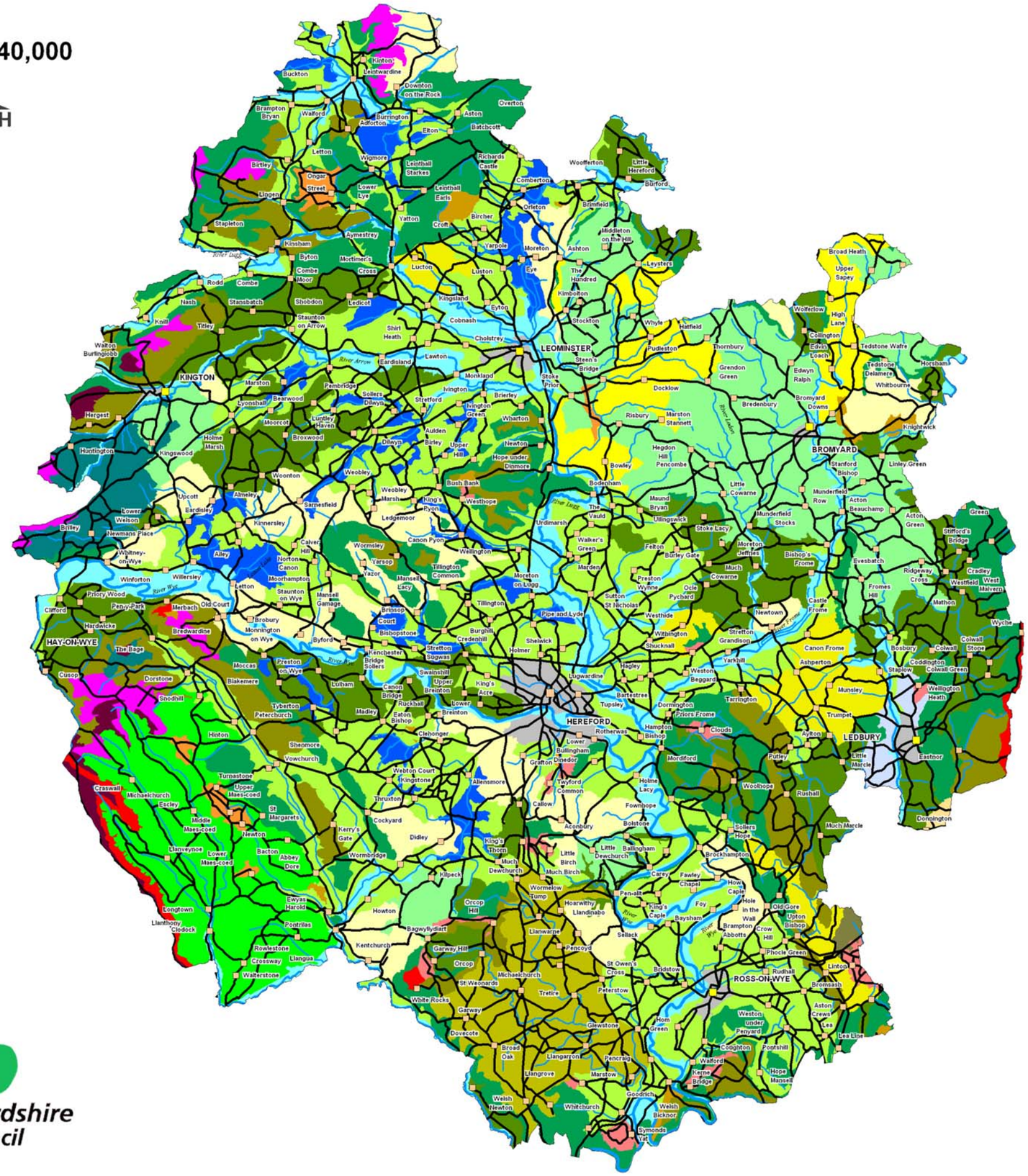
NORTH



- Ancient Border Farmlands Pg 53
- Ancient Timbered Farmlands Pg 51
- Enclosed Moors & Commons Pg 33
- Enclosed Settled Commons Pg 35
- Estate Farmlands Pg 59
- Forest Smallholdings & Dwellings Pg 45
- High Hills & Slopes Pg 29
- High Moors & Commons Pg 31
- Plateau Estate Farmlands Pg 61
- Principal Settled Farmlands Pg 69
- Principal Timbered Farmlands Pg 47
- Principal Wooded Hills Pg 39
- Riverside Meadows Pg 55
- Sandstone Estatelands Pg 65
- Sandstone Farmlands Pg 67
- Settled Farmlands on River Terrace Pg 71
- Timbered Plateau Farmlands Pg 49
- Unenclosed Commons Pg 37
- Urban
- Wet Pasture Meadows Pg 57
- Wooded Estatelands Pg 63
- Wooded Forest Pg 43
- Wooded Hills & Farmlands Pg 41

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Designated & Accessible Open Space

The Resource

3.4.13 Publicly accessible open space provides a valuable resource for leisure and recreation activities, but also operates at a huge range of scales, from National Parks to local play areas, amenity spaces and even roadside verges. The principal publicly accessible spaces, assets and resources relating to the ***county*** are:

- The Brecon Beacons National Park to the west, principally the Black Mountains group of hills south of Hay on Wye, provides large areas of open access land and many kilometres of public rights of way.
- To the east of the county, the Malvern Hills range provides significant, large areas of open access land, primarily managed under the provisions of the Malvern Hills Acts and the Malvern Hills Conservators, enacted there under. The Malvern Hills AONB promotes the many kilometres of public rights of way in the area as providing high quality countryside access. Similarly, the Wye Valley AONB actively promotes countryside access by public rights of way.
- Both the Brecon Beacons and Malvern Hills are also popular venues for other forms of leisure and recreation, including mountain biking, horse riding, hang and para-gliding, attracting visitors from across the region, country and even abroad.

At ***district*** level, publicly accessible spaces and assets consist of the following:

- Access land – defined by the Countryside and Rights of Way Act 2000 – can be found across the county with concentrations to the far west and far east of the county (as above), to the north-west of the county, east of Hereford (as below) and more generally to the western half of the county, particularly west of Leominster.
- The Forestry Commission, where feasible for operational purposes, dedicate their estates as open access land. In Herefordshire large concentrations of accessible woodland are to be found in the north of the county – the Mortimer Forest between Ludlow and Kington, and south from Ross on Wye into the Forest of Dean.

- A smaller area of Forestry Commission woodland contributing to accessible open space is to be found on the 'Woolhope Dome' between Hereford and Ledbury.

- The Woodland Trust promotes open access on sites in their ownership, unless the site is particularly sensitive to disturbance. Eleven [out of their fifteen] woods in Herefordshire – most notably Credenhill (Hereford) and Little Doward (Ross on Wye) – afford nearly 230 hectares of access land.

- Queenswood Country Park[21] provides an extensive area of public open space mid-way between Hereford and Leominster, allowing for traditional countryside activities, principally walking and cycling. There is additional open space at Bodenham Lakes.

At ***local*** level, publicly accessible spaces and assets consist of the following[22]:

The following principal parks, open green spaces and recreational spaces exist in and around the main towns:

- Leominster:
    - The Grange
    - The Priory precinct
    - Cricket pitch (off Mill Street)
    - Playing fields and sports centre (off Bridge Street)
    - Cemetery, Hereford Road
    - Linear park, Ginhall Lane
    - Recreation ground, Leisure Centre and school playing fields, east of South Street.

- Bromyard:
    - Recreation ground, York Road/Old Road
    - Sports Foundation grounds, Tenbury Road
    - Cemetery (north of B4203)
    - Sports ground (south of B4203)

[21] In total the Country Park covers nearly 70 hectares, with a core area centred on the arboretum of nearly 30 hectares

[22] The lists of sites for each town are not exhaustive and do not reflect the entire resource of accessible green space (both formal and informal), but provide an overview of the principal available asset.

- Cricket ground south of A44
- Playing fields and grounds, Queen Elizabeth Humanities College
- The Bromyard Downs (access land)

- Ledbury:

  - Riverside Park (west of Leadon Way)
  - Old Railway Line Town Walk
  - Cemetery, New Street
  - Football and sports ground (south of the cemetery)
  - Picnic site (west of Leadon Way)
  - Playing fields (north of A449)

- Ross on Wye:

  - Playing fields, John Kyrle High School
  - Riverside Park and Rope Walk
  - Caroline Symonds Gardens and Long Acres
  - Playing field and cricket ground (south-west of Wilton Road)
  - Moor Meadow (access land south-west of Wilton)
  - Cycleway (old railway line, southern edge of town)
  - Lincoln Hill (open space)
  - The Prospect, burial ground and St Mary's churchyard

- Kington:

  - Playing fields, Lady Hawkins High School
  - Recreation ground, Park Avenue
  - St Mary's churchyard
  - Crooked Well Mill Meadow

- Hereford[23]:

  - Hereford Racecourse, Roman Road
  - Widemarsh Common
  - Wyeside playing fields
  - Bishop's Meadow and King George's Field
  - Tupsley Quarry
  - Aylestone Park
  - Yazor Brook linear green space
  - Cathedral Close, Castle Green and Redcliffe Gardens

[23] Only the larger parks and open spaces are recorded here for the city of Hereford.

- South bank of the River Wye, Hunderton
- Hereford cemetery, recreation grounds and allotments, south of Westfaling Street
- Playing field north-east of Old School Lane
- School and college grounds and playing fields, Aylestone Hill
- Churchill Gardens, Aylestone Hill
- School grounds and public open space, Redhill
- Great Western Way, notably at its' southern extremity
- Belmont public open spaces (former landfill sites)
- Broadlands Local Nature Reserve

- A country park is in the process of development to the south-west of the city of Hereford, west of Belmont, centred on Newton Coppice.

Issues

3.4.14 The principal issues relating to publicly accessible spaces are:

- Safeguarding valued and valuable public open spaces – whether 'green' or 'brown', urban or rural – where they contribute to a multifunctional environment and form a component of the wider green infrastructure network.

- Recognising and changing management practices used in public open spaces that lead to or result in additional multiple benefits; including enhanced biodiversity value, improved access and quality (both physical and intellectual), increased opportunities for alternative and multiple uses, robustness in the face of climate change and sustainability, both economically and environmentally.

- Recognising the deficiencies in the provision of publicly accessible open space within the county, currently disguised by a perception of accessibility, typical in rural counties. It may be necessary to establish or review criteria and thresholds for the provision of green space particularly in response to increased housing numbers.

- Utilising the evidence collated in the public open space audit commissioned by and carried out for Herefordshire Council[24], as recommended in *Planning Policy Guidance 17: Planning for Open Space, Sport and Recreation* (PPG17) and ensuring that criteria for the provision

[24] Herefordshire Council PPG17 Open Spaces Assessment, Draft Report by Strategic Leisure Ltd, November 2006

and redevelopment of public open space, outlined in PPG17, are fully embedded in policies and strategies.

- Where sites contain components of natural or historic sensitivity, excessive public use may result in irreversible damage or disturbance to that asset. Criteria for the provision of publicly accessible open space must recognised site-specific sensitivities and adjusted accordingly. Anticipated levels and types of usage must be concomitant with expectation of experience and physical constraint.

- Provision of publicly accessible open and green space should not be piecemeal and must respond to need, aspirations, and local distinctiveness and character, and contribute to the wider network of green assets.

- The design of publicly accessible open spaces should seek to minimise management input and promote efficiency of both space and resources.

- The successful provision of new publicly accessible open space can be dependent on attracting visitors away from existing, familiar sites. Often the lack of mature features and elements in new sites is the principal barrier to use and occupation. Similarly, the popularity of an existing site can be due to the sheer numbers of people visiting, generating additional facilities, a sense of comfort and increased investment in management, all potentially positive for local communities and economies, but equally detrimental to the quality and content of the site. The problems of 'honey-potting' are widely recognised, but not easily resolved.

Opportunities

3.4.15 The main opportunities for publicly accessible spaces in the ***county*** are:

- Exploration and investigation of the need and potential for new country parks and major accessible green spaces within reasonable distance of principal population centres[25] should be carried out and realised if a shortfall in provision is identified.

[25] Standards for accessible natural green space have been developed and reviewed by Natural England (formerly English Nature) based on population and distance of travel. The areas and distances of travel for the provision of greenspace are described by the Natural England *Accessible Natural Greenspace Standards (ANGSt).*

- Continued promotion and support of the AONBs and National Park within easy reach of the county's population, and particularly the promotion of access for all.

- Identifying areas and concentrations of publicly accessible open space and using these areas as the foundation for the provision of new sites may help to focus resources and alleviate pressure currently felt at many existing sites.

- Implementing the recommendations and objectives contained in the West Midlands Regional Forestry Framework (*Growing our Future, 2004*) in relation to access, recreation and tourism.

The main opportunities for publicly accessible spaces at a ***district*** level are:

- Providing new, large areas of publicly accessible open space that have the potential to serve multiple communities. Queenswood Country Park, located equidistant between Hereford and Leominster, and serving both communities whilst concentrating resources, provides an exemplar for the county.

- Utilising waste materials, redundant and worked-out minerals sites and large areas of 'brownfield' land in imaginative ways to provide publicly accessible open spaces should be encouraged and implemented wherever the opportunity arises.[26]

- Identifying, enhancing and developing linear accessible public green spaces such as canal, riverside and roadside access, and along redundant transport routes and existing rights of way networks.

- Identifying and developing publicly accessible open spaces in areas already recognised as desirable destinations, seeking to alleviate pressure where necessary and extend provision where possible. Examples of potential sites include Stretton Sugwas Quarry, Hereford Quarry and Leominster landfill site.

- Developing opportunities to engage with and educate the public at publicly accessible sites.

The main opportunities for publicly accessible spaces at a ***local*** level are:

[26] An example of the imaginative use of waste material, in the form of demolition waste (partly derived from the demolition of the old Wembley Stadium), to form public open space of high quality can be seen in the development of Northala Fields, London Borough of Ealing.

- Addressing shortfalls in the provision of publicly accessible green space through planning gain, predetermining, where possible, the strategic location of open space provision on and adjacent to development sites to best serve the maximum number of people and functions.

- Extending the boundaries of existing green spaces to provide buffers to areas of sensitivity, linkages to nearby areas of open space and improving access to sites generally.

- Improving the multifunctional role of publicly accessible open spaces through the use of varied management techniques, reducing inputs and energy consumption whilst continuing to fulfil local expectations and needs.

- Develop criteria to determine projected need and usage of publicly accessible open spaces and identify key locations within or adjacent to existing settlements that fulfil the criteria.

- Encouraging people to enjoy their local natural spaces and benefit their health by taking part in health walks, such as promoted by Natural England's Walking for Health (WfH) initiative.

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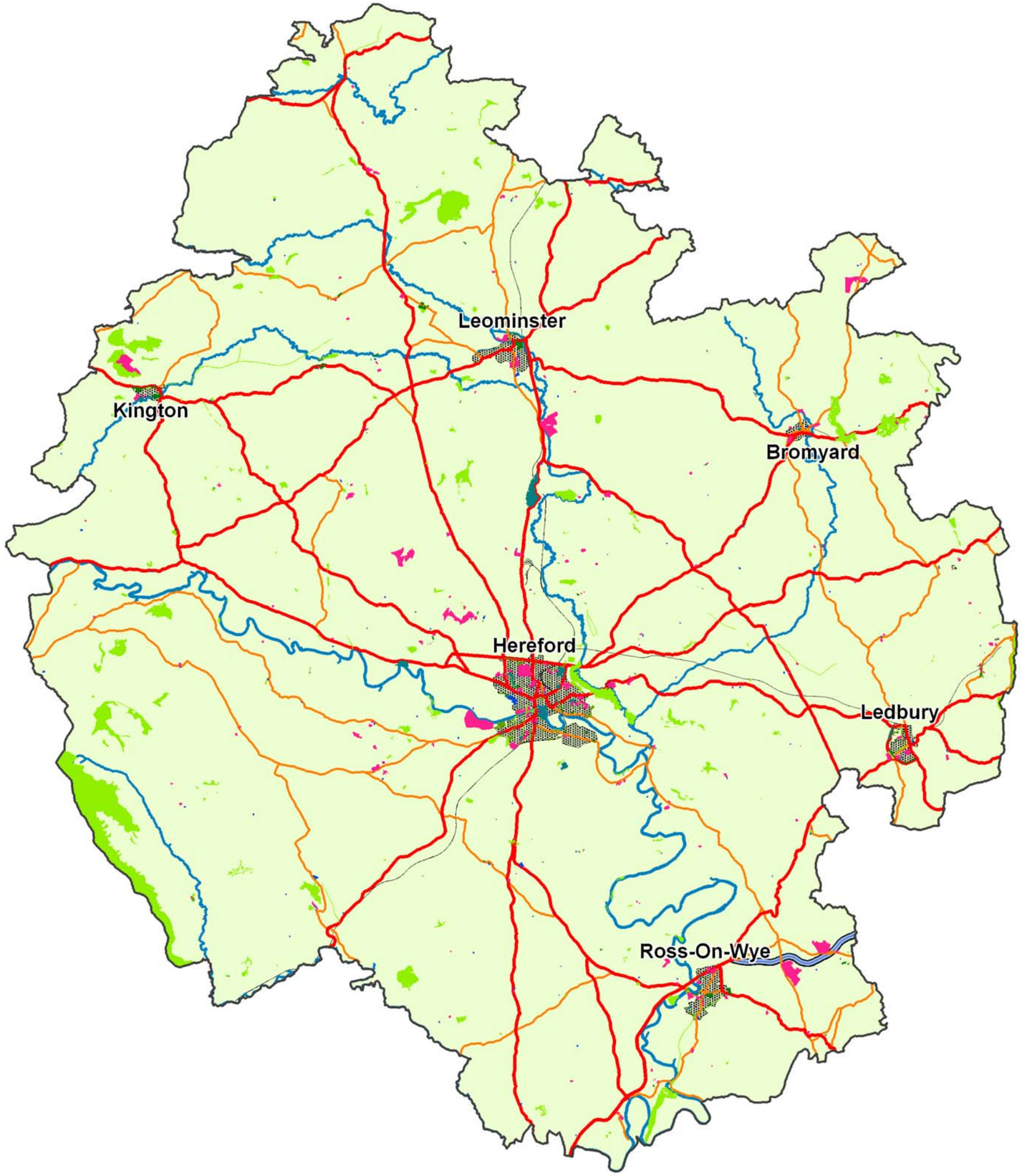
Green Infrastructure Strategy

Figure 3-10 Designated and Accessible Open Space



Settlements

Motorway

A Roads

B Roads

Rail

Rivers

Land use

Amenity Greenspace

Cemeteries and Churchyards

Natural and Semi-Natural Greenspace

Outdoor Sports Facilities

Parks and Gardens

Provision for Children and Teenagers

Herefordshire Council

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NORTH

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
Hereford
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

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3.5 Natural Resources Summary

The natural resources and physical character of the county underpin the existing green infrastructure and will inform the provision of new assets and features.

The influences of topography and hydrology are particularly marked, the latter a critical influence on social and economic development at both a county and local level.

Positive management of floodplains and water resources will be key to a sustainable future for green infrastructure – a huge and challenging problem, but one of potentially enormous benefit to all.

The biodiversity and ecological assets in the county are diverse, contributing to local distinctiveness and making the area recognised as important nationally.

It is apparent that ecological systems need to function at a broad spectrum, across whole landscapes and in distinct and localised territories. It is essential for the future of our biodiversity resource that connections are made between sites and habitats and that these connections are robust and fully functional.

Adaptation to climate change, species migration and range expansion are critical challenges to be met.

3.6 Human Influences Summary

Human activity and interaction with natural resources has shaped the present county to such an extent that clear characteristics, elements and features can be identified. Historic human activities, dating back to the earliest settlers of the county, can still be seen and still bear influence over the character of the area.

Current land uses, often intrinsically linked with past activity, are many and distributed widely across the county.

Distinct patterns of movement and transportation routes, again many rooted in the distant past, relate closely to the topography of the county and reinforce, or string together, a network of distinct and varied settlements.

The intensity of human activity in some parts of the county, along with a sparse settlement pattern in others, has resulted in a paucity of publicly accessible space and a general deficiency in public rights of way in the area.

Popular accessible recreational land is pressured and there are risks of irreversible damage to some features of value.

Naturally occurring resources and the products of human activity will need to be managed with extreme care, and a degree of ingenuity, if the characteristics of the county are to be maintained, preserved and enhanced.

Linking current and projected human activity to the legacy of past activities and influences, whilst supporting and developing natural systems and resources, must form the foundation for future development within the county.

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4.0 THE GREEN INFRASTRUCTURE FRAMEWORK

4.1 General

4.1.1 This section of the strategy presents the context in which green infrastructure can be found in and around Herefordshire; the network of sites and assets in relation to people and places. It goes on to describe how intact that network is, the distribution of assets at the three geographic levels previously described and how a connected, multi-functional landscape of green spaces, sites and assets can be envisioned. The strategy also develops how green infrastructure could be enhanced, enlarged and repaired through the process of new development and in response to new pressures, creating better and more functional places to live and work.

4.1.2 At each level, a 'vision' has been produced:

- a county-wide vision
- a vision for the connectivity of the distinct districts within the county
- a local vision for Hereford and each of the five market towns

Further refinement and detail is given to the description of the geographic areas under consideration in Section 5, in which local and strategic corridors and zones will be identified and described.

4.1.3 The development of a planned, strategic network of green infrastructure is based on the findings of the study and the issues and opportunities phase of this work to be found in Section 3. The green infrastructure network presented in this section is based on observation and the relatively simple process of 'gap analyses'. It will be further refined and benefit from stakeholder scrutiny during the process of consultation and ongoing engagement with interested parties.

4.2 A Vision for Green Infrastructure in Herefordshire

4.2.6 The green infrastructure network and framework, in conjunction with the guiding policies and principles are intended to deliver the following vision for green infrastructure in Herefordshire:

All the biodiversity, landscape, heritage, access and recreational sites, assets and resources across the county of Herefordshire, that make the county and neighbourhoods attractive, distinctive and valued will be recognised and placed at the heart of planning for a sustainable future for the county. The development of a multifunctional network of green spaces, links and assets that help to conserve the biodiversity, culture and heritage of the county will be protected and enhanced, catering for and stimulating the economic, social and environmental needs of all communities.

The Green Infrastructure Strategy will endeavour to:

- Promote high quality development in and around the city, market towns and rural areas of the county that places the planning of environmental assets, green spaces, accessible places and aesthetic environments at the fore.
- Protect and enhance key ecological habitats, species and systems.
- Protect, restore and enhance landscapes that are most valued by residents and visitors to the county; rehabilitate systems within the landscape that benefit ecology, culture and the wider environment.
- Create places that allow for leisure, recreation, sport and exercise, providing the opportunity to promote physical and mental health and well-being.
- Preserve and provide opportunities for interpreting and better understanding the archaeological, historical and cultural features in the landscape and how they define a sense of place and a sense of history.
- Realise the opportunities for farmers and land managers to diversify activities to ensure a healthy, productive environment.

4.3 The Green Infrastructure Framework

4.3.1 ***Deficiencies & Needs***

Natural Systems

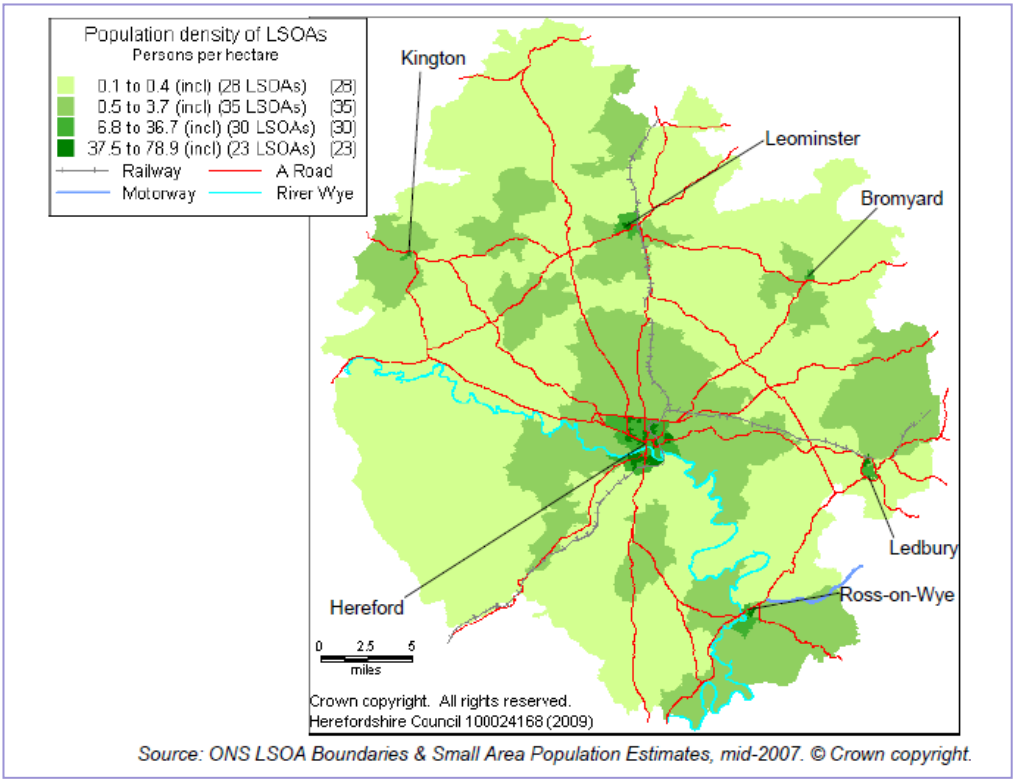
Although the green infrastructure study has shown the wealth of sites, assets and corridors that exist across the county, it is also clear that much of the resource is fragmented, vulnerable to further change, divorced from similar sites and not easily accessed by residents of the county. The distribution of assets is constrained and impacted in ways that limit its full value or contribution to such issues as ecosystem services or truly integrated functionality. Much of the large-scale resource is located beyond, or at the periphery of the county, with the central portion dominated by agriculture, and principally arable cultivation. Only the higher ground and steeper slopes of some of the hills within the central area, and some of the river corridors retain significant quantities of semi-natural habitat. Similarly, topography and traditional land use has created a distinct pattern of orchards, although this is likely to be a diminishing resource, and again, limited to land less accessible to agricultural intensification. Underlying geology and the resultant topography, and the constraints of rivers and streams has shaped the opportunities for diversity in habitat and character. However, many of the most diverse and valued sites and corridors within the county are often constricted and limited to small or narrow components of the landscape. Correspondingly, much of the biodiversity resource is limited to, or most frequently recorded in the areas inaccessible to intensive agriculture.

4.3.2 Human Influences

Cultural assets and settlements are generally dispersed across the county, reflecting a long history and tradition of land use and settlement. Towns, villages, country houses and other historic remains and assets often appear as islands in the landscape, with abrupt edges or boundaries to open, productive countryside or more recent development beyond their boundaries. Perhaps the most notable exception to this pattern is the surviving and remnant pattern of historic field boundaries apparent in the landscape. Beyond the immediate environs of towns and villages, access to the countryside is often limited and scarce. The network of major roads and railways can be both a barrier to movement across the landscape and corridors in their own right; rarely are the two fully or properly integrated. In some parts of the county, the character of the landscape is bland and lacking clear distinctiveness and in many parts the steady erosion of field patterns, loss of hedgerow trees, and a general ‘domestication’ of the landscape is resulting in loss of quality and character.

4.3.3 Within, and at the fringe of settlements there is often little provision of green or open space; however, Hereford and the market towns are generally provided with a few high-quality green spaces and corridors. In part, the limited amount of open space in the centre of settlements reflects their medieval origins and the resultant close-knit pattern of streets and buildings; a surviving pattern to be celebrated and conserved. However, more recent development, while containing public open space, has generally been created without regard to producing sustainable green infrastructure, or utilising and adapting traditional and existing features and elements of the landscape. Green space in new development tends to be in the form of 'islands' disconnected from similar spaces and their intended users.

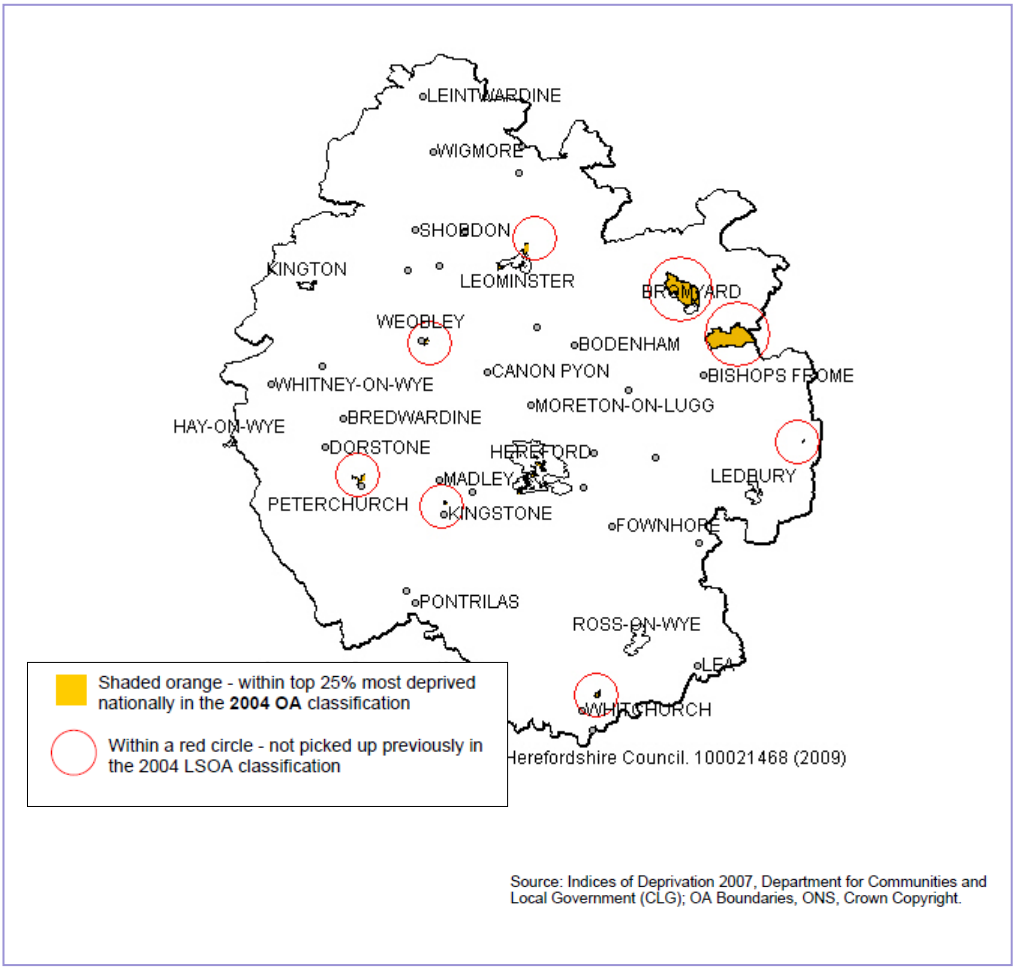
4.3.4 Lack of green and accessible open space is most marked when considered in relation to population and settlement density, and indices of deprivation [Figures 4-1 and 4-2]. Typically the greatest access to green space is in proportion to low-density development and high levels of wealth and income. Similarly, quality of health is also in direct proportion to quality of environment; the poorer the access to open, green space, the lower the general condition of health. It is proposed that this Strategy should seek to redress this imbalance and specifically target the provision of new green infrastructure adjacent to the most deprived and least well provisioned areas.



Source: ONS LSOA Boundaries & Small Area Population Estimates, mid-2007. © Crown copyright.

Figure 4-1 – Population density (of Lower Super Output Areas mid-2008) (*State of Herefordshire Report, 2009 (Herefordshire Partnership))*

Figure 4-2 – Areas of overall deprivation (based on Output Areas 2004) (*State of Herefordshire Report, 2009 (Herefordshire Partnership)*).



4.3.5 Natural England's Accessible Natural Greenspace Standard (ANGSt)[1] provides a set of benchmarks for ensuring access to places near to where people live. It is aimed at populations of towns and cities; however, much of Herefordshire (90% of the land area) is classified as rural or dispersed. These standards include a recommendation that people living in towns and cities should have statutory Local Nature Reserves at a minimum level of one hectare per thousand population. The population of Herefordshire is approximately 180 000; the total area of LNRs in the county is 243ha, therefore exceeding the recommended standard. Further work is needed to address whether the other standards for access are applicable to the population of Herefordshire and if they are being met.

[1] Further information is available from the Natural England web site at: http://www.naturalengland.org.uk/ourwork/enjoying/places/greenspace/greenspacestandards.aspx

4.3.6 *Strategic Tiers – Visions, Corridors, Sites & Fringe Zones*

The extent of the strategic tiers under consideration in this strategy is described at Section 2. The following presents a vision for each of the strategic tiers of green infrastructure in the county. In addition, the connecting framework of green infrastructure, and the framework for each of the six principal settlements, is defined by a series of:

- **District Strategic Corridors (DSC)**
- **District Enhancement Zones (DEZ)**
- **Local Strategic Corridors (LSC)**
- **Local Enhancement Zones (LEZ)**
- **Fringe Zones (FZ)**

Fig 4-3 shows the Strategic Concept Map for the County. Strategic corridors and areas that extend beyond the county boundaries have also been identified. The local corridors and enhancement zones focus on the strategic housing areas – the likely areas of urban expansion – being considered in the developing Core Strategy of the Local Development Framework. They do not represent an exhaustive list of local areas where green infrastructure would contribute to an improved living environment. The benefit of green infrastructure provision to other such areas should be considered according to the guiding principles and policy described in Section 6. Each of the six principal settlements – the main focus of the Growth Point agenda for Herefordshire – is described in terms of Local Strategic Corridors and Enhancement Zones, and a continuous peripheral network of Fringe Zones in Section 5.

Figure 4-3 Strategic Concept Map

Green Infrastructure Strategy

Herefordshire Council

County/Regional Strategic

District Strategic

Local Strategic (Fringe Zones)

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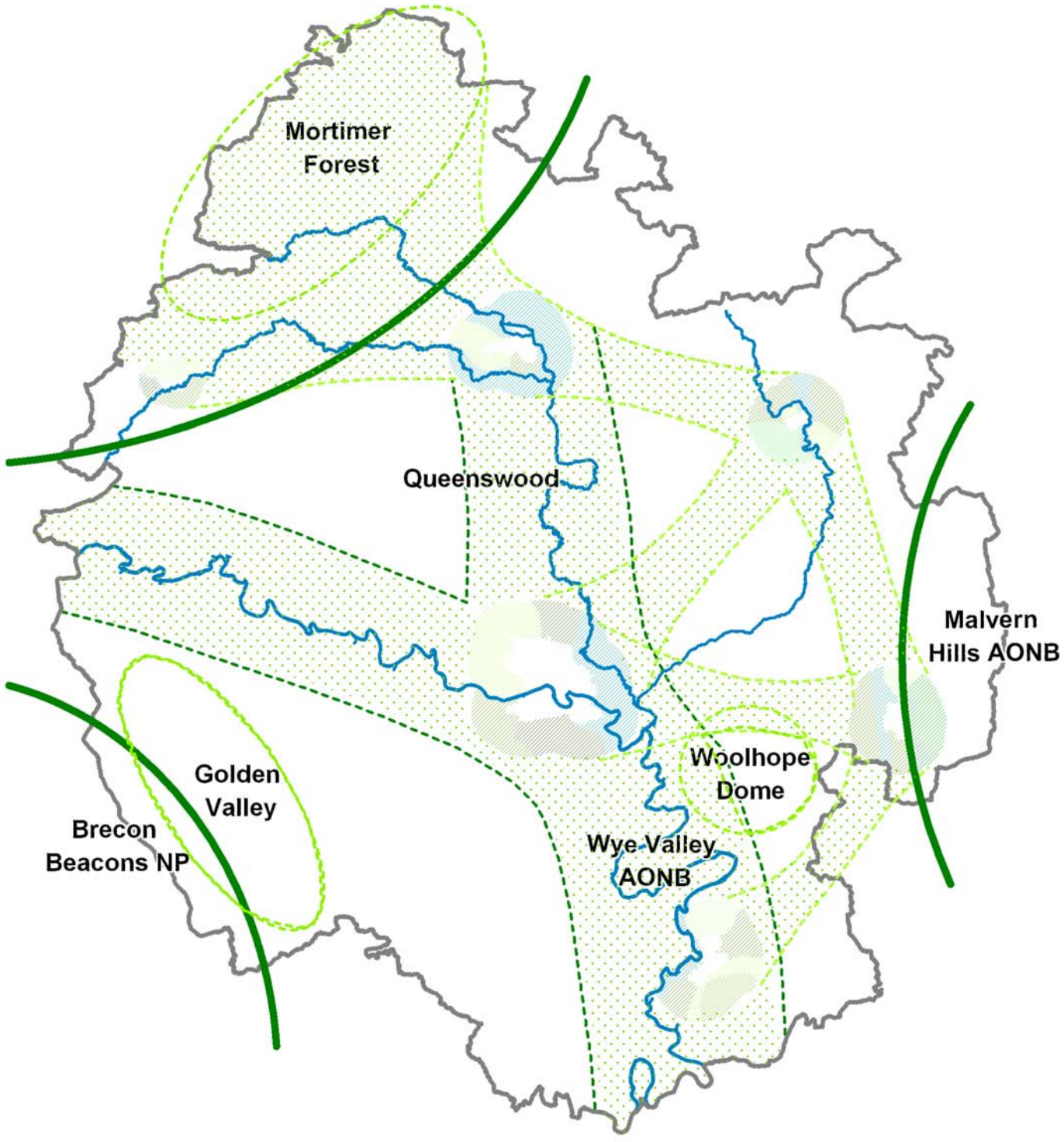
Herefordshire Council
Conservation
PO BOX 4
Plough Lane
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031



County Tier

4.3.7 *County Vision*

Herefordshire will be:

- A place where nationally-recognised and identified green infrastructure assets, particularly National Parks and Areas of Outstanding Natural Beauty, Special Areas of Conservation and Sites of Special Scientific Interest, within and just beyond the county, are connected and accessible.

- A place where planning policies and documents recognise and reflect the diverse and distinct landscape areas that extend across and beyond the county, which best illustrate the action and interaction of humans with the environment over time.

4.3.8 *County Strategic Corridors*

One corridor has been identified within the county, which links beyond the county boundaries and has wide-reaching green infrastructure significance [See Fig 4-4]:

The River Wye Corridor

The most widely recognised physical and cultural corridor passing through the county is formed by the River Wye extending from beyond Hay on Wye in the west, through Hereford and Ross on Wye and the south of the county, to Monmouth and beyond. The length of the river is recognised as being of international nature conservation significance and designated a Special Area of Conservation. From Hereford, southward to Chepstow, the landscape of the Wye corridor has been recognised as being of outstanding natural beauty and designated an AONB.

The landscape of the Wye corridor is rich in natural, cultural and historic assets, the combined effect being a coherent linear landscape extending across a number of counties, and two countries. The towns, and indeed the City of Hereford, along the course of the river are intrinsically linked to it and its associated flood plains, terraces and fluvial soils, generating much of the wealth and distinctiveness of the county. The River Wye and accompanying landscapes was one of the primary generators of the ‘Picturesque’ landscape movement; exported and translated around the globe.

It is imperative that at the heart of any development along, or within the River Wye corridor, the international and national significance of the landscape is recognised. Any development affecting the integrity of this corridor will not only have a negative impact on the functions, systems, ecology and culture of the County of Hereford, but will extend into neighbouring counties and countries. Every attempt should be made to insure that the heritage, both natural and manmade, present in the River Wye corridor is protected and enhanced, and used to inform decisions making.

4.3.9 ***County Strategic Areas***

Three strategic areas that have influence across and beyond the county have been identified, also shown on Fig 4-4. They include the landscape of the Malvern Hills, the boundary between Herefordshire and Worcestershire; the Mortimer Forest, the North West Herefordshire Hills and the southern edge of the Shropshire Hills AONB; and the Black Mountains and the eastern edge of the Brecon Beacons National Park. These three areas extend to or include nationally designated landscape and a wealth of natural and cultural features, sites and attributes.

4.3.10 Within these county strategic areas, district enhancement zones have also been identified and further information is given below. As with the county strategic corridor, any development in these areas may impact on assets and features beyond the county boundaries and potentially of national or international importance. Every attempt should be made to ensure that the heritage, both natural and manmade, present in the county strategic areas is protected and enhanced, and used to inform decisions making.

Figure 4-4 County Strategic Concept Map

Green Infrastructure Strategy

Herefordshire Council

County/Regional Strategic

Local Strategic (Fringe Zones)

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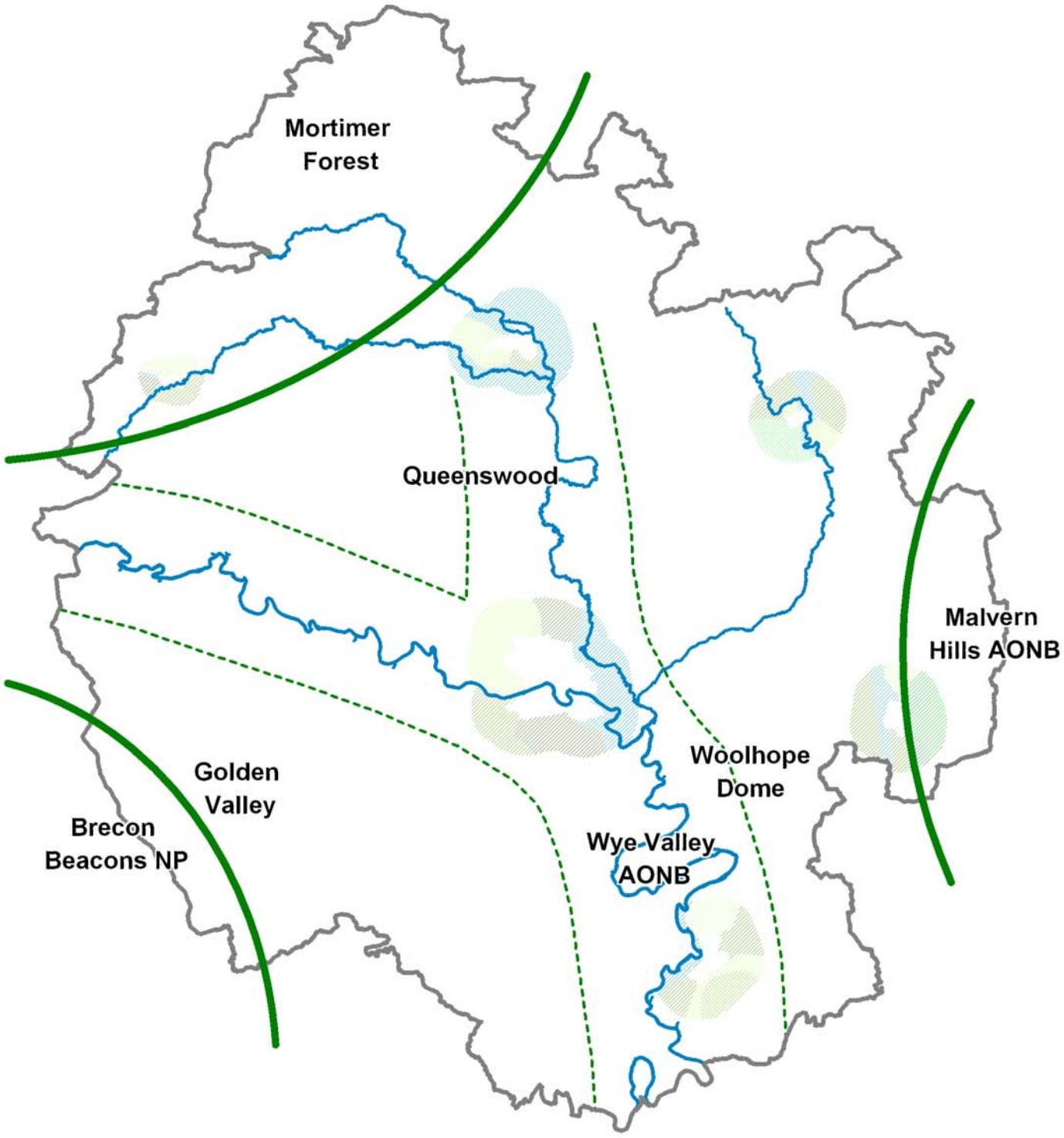
Plough Lane
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031



District Tier

4.3.11 ***District Vision***

Within Herefordshire:

- Corridors of green infrastructure, linking the six principal towns, provide free movement through the landscape, connecting places attractive to people, wildlife and business, and will secure a sustainable future for people and wildlife.
- Corridors will connect nationally and locally recognised and protected sites, will reverse habitat fragmentation, build ecological linkages and restore and conserve landscape and cultural character.
- Sites of green infrastructure significance will be linked and become robust and secured against future change and pressure, and adaptable to the impacts of climate change.
- Functional landscapes, capable of minimising the effects of flooding on local communities, will be conserved and created by a proper understanding and management of natural fluvial systems.

4.3.12 ***District Strategic Corridors*** **(Fig. 4-5)**

Seven strategic corridors have been identified within the county that form a strategic network of distinct, linear landscapes joining people and the environment, building on existing and potential assets. On the whole, only corridors that link settlements have been identified. It should be noted that there is no distinct corridor between Ledbury and Ross on Wye; the linkage is effectively created through an amalgamation of the Hereford to Ledbury and Hereford to Ross on Wye corridors. A further two corridors of strategic importance have also been identified which do not link larger settlements, but are considered to contain important components of the County's heritage and natural resource. In combination the network of strategic corridors circumnavigate the county and form radial links to and from the City of Hereford at the centre.

The principal **District Strategic Corridors (DSC)** are:

4.3.13 ***DSC 1 – Hereford to Leominster***

This corridor is defined by the course of the River Lugg and the multitude of historic and natural assets contained within and above its valley. The corridor

also contains the County's largest Country Park, at Queenswood and the transport corridors of the A49 and the railway line. A number of sites designated for their natural (both ecological and geological importance) and heritage significance are contained within this corridor. Much of the green infrastructure within this corridor is readily available to large populations; principally residents of north Hereford and Leominster, but also a number of larger villages including Moreton on Lugg, Marden, Wellington and Canon Pyon.

4.3.14 ***DSC 2 – Hereford to Bromyard***

Defined by the course of the River Frome in the south-east and the A465 in the north-west, this corridor meanders north-eastward from Hereford following high ground and the incised River Frome valley on to the Bromyard Plateau. The corridor contains a few woodland, grassland and orchard sites of some significance and a number of historic settlements and buildings of note. The green infrastructure assets within this corridor are fragmented and disconnected, and some effort would be needed to establish a robust system of green infrastructure along this line. However, the corridor has integrity and significance, terminating at either end with areas of greater infrastructure significance; the Lugg Meadows east of Hereford and the Bromyard Downs east of Bromyard.

4.3.15 ***DSC 3 – Hereford to Ledbury***

This corridor has at its centre the Woolhope Dome; an area widely recognised for its natural and historic assets. The corridor is bounded to the north by the A438, railway line and former Hereford to Ledbury canal, all well-defined movement corridors utilising generally level ground. Between the eastern edge of the Woolhope area (the Marcle Ridge) and rising ground east of Ledbury (the western edge of the Malvern Hills AONB) the corridor is bisected by the course of the A4172, Roman Road and a broad and shallow valley. The landscape contains many woodlands, orchards and grassland sites of considerable significance.

4.3.16 ***DSC 4 – Hereford to Ross on Wye***

The River Wye forms the primary connecting feature within this corridor. In addition, the woodlands to the western edge of the Woolhope Dome and around How Caple and Perrystone Hill define the eastern edge of the corridor and provide some connectivity of habitat. Within this corridor, the route of the former Hereford to Ross on Wye railway line provides a linear feature of historic significance and recreational potential. Onward from Ross on Wye the corridor links to the Forest of Dean.

4.3.17 ***DSC 5 – Leominster to Bromyard***

On first impressions this corridor cannot easily be discerned. A series of watercourses running off the Bromyard Plateau (the Stretford, Cheaton and Humber Brooks flowing west toward the River Lugg and Leominster, and the River Frome flowing east toward Bromyard), the line of a former railway and the A44 all subtly contribute to an east-west corridor, rich in natural and historic assets.

4.3.18 ***DSC 6 – Bromyard to Ledbury***

From Bromyard this corridor at first follows the course of the River Frome and coincides with DSC 2. From the point where the corridor crosses the A4103 the route diverges from the course of DSC 2 to incorporate the upper catchment of the River Leadon and a number of connected assets and green infrastructure elements including woodland and orchard sites, historic buildings and settlements and the course of the Hereford to Ledbury canal.

4.3.19 ***DSC 7 – Hereford to Hay on Wye***

As with DSC 4, this corridor is centred on the course of the River Wye. It also includes the broad valley bottom and adjoining hills. Grasslands, woodland, parkland and wetland areas – principally the 'Letton Lakes' area – are of great significance. A well-connected network of habitats and historic features already exist in this corridor.

4.3.20 ***DSC 8 – The Golden Valley***

The series of deeply incised valleys to the south-west of the county, although sparsely populated, create a landscape rich in heritage and natural assets. These north-west to south-east valleys are centred on the courses of the Olchon Brook and Rivers Monnow and Dore. The upper slopes of the valleys support a wealth of upland habitats and woodlands; they form the eastern boundary of the Black Mountains and Brecon Beacons National Park. This corridor makes important links with DSC 7 and DSC 4.

4.3.21 ***SC 9 – Mortimer Forest***

In the far north-west of the county a distinct corridor of high ground, principally wooded in character extends from Hay on Wye in the south, through Kington and on to Ludlow in the north. As with DSC 8, the area is sparsely populated, but contains a wealth of natural and historic assets which contribute to the connectivity of habitats and distinctiveness of the county, and form an important part of the framework of green infrastructure. This corridor also contains sections of the River Teme and Arrow.

Figure 4-5 District Corridors and Enhancement Zones

Green Infrastructure Strategy

Herefordshire Council

District Strategic

Local Strategic (Fringe Zones)

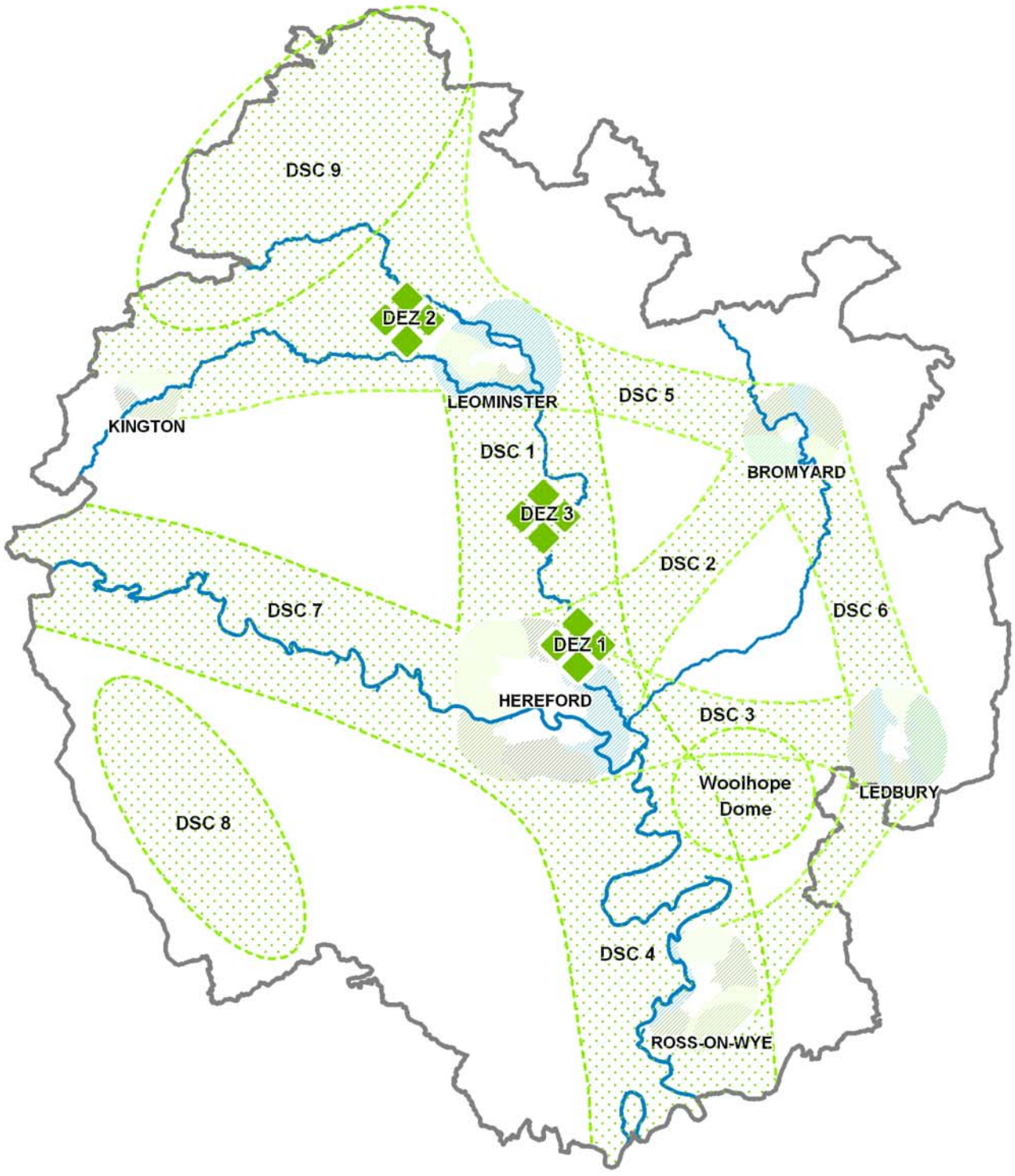
District Enhancement Zones (DEZ)

SCALE 1:330,000

NORTH

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031



4.3.22 ***District Enhancement Zones*** **(See Fig. 4-5)**

4.3.23 ***DEZ 1***

The opportunity exists for the development of a country park north-east of city. Currently country parks exist to the south of the City at Newton Farm/Belmont and between Hereford and Leominster at Queenswood. Populations to the north and east of the City are not well provided for, although disconnected accessible green space exists at the Lugg Meadows and Aylestone Hill, and a number of smaller, formal spaces. Ideally connecting these spaces and developing a positive management strategy for access and interpretation would allow for a more extensive and functional provision of green space. However, it is essential that the conservation status of the Lugg Meadows is not compromised by inappropriate recreational activity.

Development of a country park in this location would also have the advantage of serving the dispersed rural population to the north and east of the City (fig. 4-5), occupying a landscape with limited accessible space and few public rights of way. Connecting existing assets would improve the viability of natural systems in the area and make them more robust in response to increasing development and access pressure.

Priorities for this enhancement zone will be:

- Improved access
- Connection of sites, assets and habitats
- Restoration of landscape condition in intensively farmed areas
- Protection of existing nature conservation value
- Creation and enhancement of robust wetland habitats and networks
- Improved interpretation and educational opportunities

4.3.24 ***DEZ 2***

An area of land to the north and west of Leominster has been identified for enhancement primarily to realise an opportunity to create a landscape capable of mitigating increased risk of flooding. The zone identified centres on the courses of the Rivers Lugg and Arrow, their tributaries and associated flood plains. The area consists of a flat, expansive landscape of relatively high agricultural value, but enormous potential for the creation of wetland habitats. Access via the public rights of way network is limited, although a number of footpaths and bridleways connect sites of value and potential across this landscape.

Increased development proposed for Leominster, increases pressure on the water system; supply, waste treatment and surface run-off[2]. Laying at the confluence of a number of watercourses it is imperative that downstream pressure on the fluvial system is not increased or that flood water lacks egress opportunities from the town. Positively managing the landscape for controlled flood management upstream of the town allows for the slow release of water into the river network.

Priorities for this enhancement zone will be:

- The creation and restoration of functional wetland systems and networks centred on the principal river corridors
- Improved access
- The creation and restoration of wetland features; ponds, ditches and streams
- Restoration of landscape condition in intensively farmed areas

4.3.25 ***DEZ 3***

Equidistant between Hereford and Leominster, a number of significant sites and features exist that would benefit from positive management of intervening land, effectively linking the assets and creating a robust, functional landscape. At the heart of this zone are Queenswood Country Park, Bodenham Lakes and the 'restored' areas of Wellington Quarry. This zone provides the opportunity to create an extensive network of recreational and educational sites, and functional habitats serving the two largest settlements in the county, linked by the River Lugg and A49.

Further restoration work at Wellington Quarry over an extended period will ensure the development of additional and extensive wetland habitat within the zone. Connected with Bodenham Lakes by the course of the River Lugg, the potential for the creation of a robust and functional wetland landscape is high. The amount of woodland in the zone, particularly semi-natural woodland in the vicinity of Queenswood, adds a further dimension, as does the presence of Hampton Court, an historic park and garden of local significance.

Priorities for this enhancement zone will be:

- The creation and restoration of functional wetland systems and networks centred on the principal river corridors
- The extension of native broadleaf woodland cover, where appropriate, on the upper slopes of hills in the vicinity
- Improved access
- Improve connection of diverse sites, assets and habitats creating a mosaic landscape of high quality

[2] Herefordshire Water Cycle Study, 2009

Local Tier

4.3.26 *Local Vision*

At a local level:

- The most appropriate and necessary green infrastructure will be incorporated into new and existing settlements and communities to ensure the creation of quality places to live and work, and robust landscapes and environmental systems.
- Cater for community needs by placing green infrastructure at the heart of new and existing development to promote social cohesion and economic vitality.
- Put people close to open and green spaces and wildlife, natural and cultural assets, alternative means of movement and transport, and functional, healthy places.
- Create places that make a local contribution to mitigating the effects of climate change; cool, green places resistant to, or capable of accommodating and managing local flooding events.

4.3.27 *Local Strategic Corridors*

Strategic corridors within and around the six towns have been identified. Those described below, as previously mentioned, are not exhaustive, but represent the strategic framework of connected linear components of green infrastructure within and around the towns. The existing historic and natural assets that make up the **Local Strategic Corridors (LSC)** provide the opportunity to increase the sustainability of new and existing development. Well-connected linear assets will benefit:

- biodiversity
- conservation and enhancement of local distinctiveness
- flood management
- leisure and recreation
- alternative transportation opportunities

4.3.28 *Local Enhancement Zones*

Areas have been identified in the developing Core Strategy as options for potential urban expansion; these areas form the focus of the **Local Enhancement Zones (LEZ)** in this strategy. Other areas around the periphery of each town, not subject to development pressure, but where benefit to the local community and environment would accrue have also

been identified. Some indication of the type of green infrastructure suitable to each zone has been made; however, these are not conclusive and infrastructure provision should also make reference to the general principles described in the following section.

The network of green and open spaces within the towns has been identified and recorded in both the draft open space audit (PPG17 study), carried out for Herefordshire Council, and in the Rapid Townscape Assessments carried out for each of the six towns[3].

4.3.29 ***Fringe Zones***

Around each of the six towns a peripheral zone has been defined where, through the provision of green infrastructure it is proposed that a comfortable, dynamic and functional transition between the settlement and open countryside can be created, both in conjunction with new development and through specific projects. The provision of green infrastructure in these fringe zones is based on, and will respond to the existing visual sensitivity of the areas[4], biodiversity resources[5] and historic and cultural significance[6]. The establishment of fringe zones is intended to secure circumferential integrity of green infrastructure to complement the linear, radial corridors and network of sites that occupy ground in and beyond the principal settlements. Each fringe zone is divided into sub-compartments that best reflect the landscape, ecological and historic character of the respective areas.

In Section 5, the Local Strategic Corridors, Local Enhancement Zones and Fringe Zones are described for each of the six principal towns:

3 Rapid Townscape Assessments have been carried out for each of the six towns by Herefordshire Council's Buildings Conservation Team.

4 *Urban Fringe Sensitivity Analysis*, Herefordshire Council Landscape and Biodiversity Team, 2009.

5 *Building Biodiversity into Herefordshire's Local Development Framework*, Herefordshire Council Landscape and Biodiversity Team, 2009.

6 *HEDIDS*, Herefordshire Council Archaeology Service, 2009

5.0 LOCAL FRAMEWORK OF GREEN INFRASTRUCTURE

In this section, Local Strategic Corridors, Local Enhancement Zones and Fringe Zones are described for each of the six principal towns. Although not within the scope of the strategy at this stage, there will be opportunity for these principles to be extended to the rural settlements in the future.

5.1 Hereford

5.1.1 Hereford Strategic Corridors (Fig 5-1)

HerLSC 1 West of the city, this corridor extends from near the junction of Westfaling Street and Breinton Road, running just south of the former. The corridor includes in turn the Hereford Cemetery and Crematorium (and site for proposed extension) and an area of allotment gardens. Further west into open countryside the corridor follows the line of a bridle path (Breinton Track) and includes two Sites Important for Nature Conservation (SINCs) (one a traditional orchard site) and a newly planted small woodland owned by the Woodland Trust.

HerLSC 2 The course of the Yazor Brook runs almost to the centre of the City, only disappearing from view beyond the Bulmers works at Plough Lane. The easternmost portion of this corridor also includes the course of the Widemarsh Brook and Widemarsh Common. To the west, in the vicinity of the new Whitecross High School and Specialist Sports College, the Yazor Brook passes through intensively managed arable farmland, through the hamlet of Huntington (a Conservation Area) and again, into open arable land. The course of the two brooks are recognised for their nature conservation value and as such are designated SINCs; Widemarsh Common is historically significant and has recreational value; and the grounds of Moor House are recognised as a locally important historic park and garden. The line of the former Hereford, Hay and Brecon branch railway line also features in this corridor.

The corridor provides for pedestrian and cycle access into the centre of the city, a valuable mosaic of water features, grassland and linear woodland habitats and extensive amenity areas for informal recreation.

HerLSC 3 This green infrastructure asset takes the form of a ‘linkage’ rather than an extensive corridor. The leisure and recreational opportunities and green space provided by the Hereford Racecourse remains linked to open countryside by a gap in housing along Roman Road including the course of Ayles Brook. This provides the opportunity to establish a corridor into the landscape should an opportunity arise. Similarly, beyond the racecourse, toward the City centre, opportunities should be

taken to extend the influence and effect of this asset, ideally making links to HerLSC 2

HerLSC 4 Directly linking the River Wye to open countryside north of Roman Road, this corridor bisects the City from north to south. The corridor is a linear mosaic of habitats and assets. At its northern extent, north of Roman Road, the corridor contains a small flood attenuation pool and extensive, connected green infrastructure that will result from recently permitted development. Further south, private green space and a sports ground extend either side of Old School Lane. At this point both the current, active railway line and a redundant line converge and extend southward into the centre of the City. Just before the railway station, the corridor encompasses a short section of Widemarsh Brook and a former, private recreation ground. Beyond the station, the corridor follows the course of the Eign Brook and includes allotment gardens and the grounds of 'The Rose Garden'.

The corridor contains a number of SINCs, disconnected footpaths, wetland habitats, recreational facilities and opportunities for migration and movement of a variety species through and across the City. Important linkages, and opportunities to make linkages with other strategic corridors, exist along the length of this corridor.

HerLSC 5 This corridor links across the northern edge of the City from HerLSC 4 in the west to the River Lugg meadows. From the Three Mills Trading Estate, where the active and redundant railway lines diverge, the corridor separates industrial and trading areas to the north of the City from housing on Aylestone Hill. The corridor incorporates playing fields and school grounds, the grounds of the Royal National College for the Blind at Venn's Lane, Aylestone Park and ultimately the Lugg Meadows. Also within this corridor is a section of the Hereford to Gloucester Canal, which is also a SINC. Opportunities to improve linkages to HerLSC 4 should be realised where possible.

HerLSC 6 Extending westward from the Lugg Meadows and the Broadlands Local Nature Reserve, this corridor includes the grounds of the Broadlands Primary School, Aylestone School – Business and Enterprise College, Herefordshire College of Technology, Hereford Sixth Form College, Herefordshire College of Art and Design, Churchill Gardens and the tree-lined western section of Aylestone Hill. The corridor contains many notable trees, leisure and recreation opportunities and pedestrian links to the Lugg Meadows via Prospect Walk. Opportunities to make stronger links to HerLSC 4 should be realised where possible.

HerLSC 7 This corridor provides an east/west link into the City from the Lugg Meadows. Commencing at the Herefordshire Nature Trust's office at Lower House Farm, the corridor includes an un-registered historic garden at Hampton Dene House, the grounds and playing fields of three schools, the former Tupsley quarry (now a Local Nature Reserve and recreation ground) and the grounds of Herefordshire Council's offices at Brockington. Opportunities to make stronger links to HerLSC 4 and the River Wye should be realised where possible.

HerLSC 8 This corridor forms the northern edge of the Rotherwas Industrial Estate (Rotherwas Futures), separating the principal enterprise area from the sewerage works and historic settlement of Rotherwas. The corridor follows the line of the former Hereford to Ross on Wye railway and will become the route of a Sustrans Greenway creating a cycle and pedestrian route from the centre of the City as far as Holme Lacy to the south-east. The corridor provides a green 'bridge' through the employment zone, linking with the River Wye at both ends.

HerLSC 9 Providing a buffer between the Rotherwas employment and enterprise area and housing at Manor Farm, Lower Bullingham this corridor principally follows the route of Red Brook flowing from the south to the River Wye. Also within this corridor is the route of the Hereford to Abergavenny railway, a small piece of surviving common land along the banks of the River Wye and the 'village green' at the junction of Watery Lane with Holme Lacy Road. The course of the corridor follows Red Brook which runs parallel to Watery Lane on into open countryside with a surviving parcel of agricultural land and Watery Lane Farm to the north.

HerLSC 10 Following the rather restricted course of Withy Brook as it passes through dense housing development south of Holme Lacy Road this corridor is, nevertheless, distinct. North of Holme Lacy Road it links with the River Wye and the same section of surviving common land referred to in HerLSC 9. The course of the Withy Brook is designated a SINC. South of the Hereford to Abergavenny railway line, and in open countryside, Withy Brook, to the west, is joined by Norton Brook, to the east, passing either side of the hamlet of Bullinghope.

HerLSC 11 The former branch line of the Hereford to Abergavenny railway line, linking with the now demolished Barton Station (now occupied by Sainsbury's and other recent development) and beyond, is now utilised as a cycle and pedestrian route generally known as Great Western Way. The corridor links the centre of the City and River Wye with the far southern edge of the City at Redhill and beyond into open countryside; including informal open spaces and continuous access. The corridor is a

SINC. At its southern extent the corridor includes playing fields and cycle and pedestrian links with the developing Country Park at Newton Farm and connects with HerLSC 12.

HerLSC 12 The course of Newton Brook, flowing from the south-west into the River Wye lies at the core of this corridor. On the periphery of the City, at the very end of the eighteenth century, the brook was dammed as part of the development of the designed landscape of Belmont House. The resultant 'Belmont Pools' and ancient semi-natural woodland of Newton Coppice mark the end of this corridor and provide a popular recreational area for resident of the southern part of Hereford. Recent development to the east of 'Belmont Pools' has allowed for the extension of the nearby country park, providing a connection between HerLSC11 and 12. Where the course of Newton Brook passes through the residential area of Newton Farm and forms the western boundary of Hunderton it is accompanied by pedestrian routes and linear green space. A minor tributary of the brook, also emanating in the grounds of Belmont House, joins just before confluence with the River Wye below Barwood House.

5.1.2 Hereford Enhancement Zones (Fig 5-1)

HerLEZ 1 An area of land to the west of the City lying between the River Wye and the local strategic corridor HerLSC 1 and extending from Hereford cemetery along Breinton track, having a high visual sensitivity, but fragmented natural and historic features and assets. Expanding on the existing resource, introducing new and restoring lost green infrastructure assets should result from any development in the vicinity. In particular the following should be included in future management and development proposals:

- Protect the internationally recognised natural resource presented by the River Wye by establishing a robust linear network of habitats along the flood plain and south facing rising ground beyond.
- Maintain and enhance the network of hedgerows, some defining historically significant field patterns, and, with reference to historic maps, restore the network and condition of field boundaries.
- Plant traditional orchards, particularly in locations where evidence of former orchard planting exists.
- Establish linear buffer areas of grassland, woodland and hedgerows alongside lanes and tracks and to the rear of existing dwellings to preserve the rural character of the area, minimise any negative visual impact and soften the transition between the settlement and open countryside.

HerLEZ 2 The area of land between King's Acre Road and Roman Road, between two strategic corridors HerLSC 1 and 2, is a relatively level landscape, much affected by agricultural intensification and some recent development. The limited visual sensitivity and ecological constraints and level topography have led this zone to be considered for future development. However, a number of significant opportunities for green infrastructure enhancement exist:

- Establish substantial and robust linear habitats along the course of the Yazor Brook extending the corridor into open countryside and incorporating non-motorised vehicular and pedestrian routes to the heart of the City.
- Emphasise the course of the former railway passing through the centre of the zone by establishing linear habitats including woodland, hedgerow and adjacent grasslands, and incorporate and reinforce access opportunities both to and along the course.
- Reinstate the pattern and network of historic field enclosure by planting new, species-rich hedgerows.
- Establish linear buffer areas of grassland, woodland and hedgerows alongside Roman Road and other transport routes and to the rear of existing dwellings to preserve the rural character of the area, to minimise any negative visual impact and to soften the transition between the settlement and open countryside.

HerLEZ 3 To the north of the city, the area of land between the A49 and A4110 is predominantly of intensive agricultural (arable) land use. It has medium to high landscape sensitivity, but limited ecological constraints and has been identified with potential for limited growth; it also incorporates strategic corridor HerLSC3. A number of opportunities for green infrastructure enhancement exist:

- Establish substantial and robust linear habitats along the course of the Ayles Brook, incorporating non-motorised and pedestrian links into the city.
- Plant new, species-rich hedgerows, particularly on historic field enclosure alignments.
- Plant traditional orchards, particularly in locations where evidence of former orchard planting exists.
- Establish linear buffer areas of grassland, woodland and hedgerows, including to the rear of existing dwellings, to preserve the rural character of the area, minimise any negative visual impact and soften the transition between the settlement and open countryside.

- Promote and extend the public rights of way network and access to the countryside.

HerLEZ 4 North east of Hereford, the area of land between strategic corridors HerLSC4 and HerLSC5 is of medium visual sensitivity, but with a concentration of valuable habitats, notably grasslands and ponds. The railway lines to the north and east run through this zone and it has been identified as a possible option for employment growth. Retaining and expanding the existing biodiversity resource should result from any development in this area. Enhancement in this zone should include the following:

- Maintain and enhance the network of hedgerows, some defining historically-significant field patterns, and, with reference to historic maps, restore the network and condition of field boundaries.
- Plant traditional orchards, particularly in locations where evidence of former orchard planting exists.
- Create species-rich grassland areas and establish linkages and connections with existing grasslands.

HerLEZ 5 The Rotherwas Industrial Estate (Rotherwas Futures) includes land to the north and south of Holme Lacy Road and the strategic corridor HerLSC8. This is primarily employment land, some of which has already been developed; there is also some agricultural land. Existing biodiversity features include a number of large pools, the disused railway corridor and the abandoned indiustrial sites now with semi-natural vegetation. Enhancement in this zone could include the following:

- Encourage and ensure the development of connected and integrated landscaping proposals for plots within the Industrial Estate.
- Establish linear buffer areas of grassland, woodland and hedgerows alongside transport corridors, including the proposed ‘Greenway’.
- Incorporate tree and shrub planting along streetscapes.
- Incorporate Sustainable Drainage Systems (SuDS).
- Create small, informal recreational open spaces, incorporating biodiversity features.

HerLEZ 6 This zone comprises an area of land to the south of Hereford, approximately bounded by the A49 to the west, the railway line to the north and the Rotherwas Access Road to the south. It is predominantly arable and includes the strategic corridors of the Red Brook (HerLSC9) and Withy Brook (HerLSC10). The rising ground to the south is of high landscape sensitivity, but the flatter land adjacent to the railway corridor

has been identified as a potential site for housing growth. Opportunities for enhancement in this zone include the following:

- Reinforce the biodiversity value of linear features – the brooks and railway corridor – to improve opportunities for species migration across the landscape.
- Reinstate components of the pattern and network of historic field enclosure by planting new, species-rich hedgerows.
- Create species-rich grassland areas and establish linkages and connections with existing grasslands and other habitats.
- Establish linear buffer areas of grassland, woodland and hedgerows alongside transport corridors.
- Mitigate the visual impact of development on the landscape through the careful and considered planting of new small woodlands.

HerLEZ 7 Belmont House, Belmont Abbey and the historic park and garden lie to the south west of Hereford, incorporating the strategic corridors of the Newton Brook and the Hereford-Abergavenny railway corridor (HerLSC 12 and HerLSC 11 respectively). The stream corridor of the Newton Brook, Belmont Pools and blocks of woodland such as Newton Coppice, are all features in the zone. Much of the historic character has been eroded by arable and agricultural intensification but there are remnants of a designed landscape. A new country park has already been approved for this zone, but further enhancement opportunities in this area include:

- Utilise the historic pattern of land use and designed landscape to inform parkland restoration and management.
- Reinforce and enhance the biodiversity value of linear features – the streams and the railway – to improve opportunities for species migration.
- Encourage the establishment and positive management of grasslands (within the parkland) to establish species-rich sites.
- Promote and extend the public rights of way network and access to the countryside.
- Plant traditional orchards, particularly in locations where evidence of former orchard planting exists.

HerLEZ 8 This enhancement zone lies at the heart of the city, at the confluence of a number of strategic corridors – HerLSC2, HerLSC4, HerLSC8 and HerLSC11- and includes the proposed redevelopment area of the Edgar Street Grid. There are a number of important, existing biodiversity features, including the Widemarsh Brook, the ‘Police Meadow’ and the railway corridor. There will be numerous opportunities to enhance as well as create green infrastructure with any redevelopment of this area:

- Maintain and enhance existing wildlife corridors along the railway corridor and the Widemarsh Brook.
- Create small, informal recreational open spaces, incorporating biodiversity features whilst seeking to improve pedestrian linkages across the city.
- Incorporate tree and shrub planting along streetscapes.
- Incorporate Sustainable Drainage Systems (SuDS).

Hereford
Local Enhancement Zones and Strategic Corridors
Green Infrastructure Study
Figure 5-1

Local Enhancement Zones

Local Strategic Corridors

SCALE 1:30000

NORTH

HerLEZ1
HerLEZ2
HerLEZ3
HerLEZ4
HerLEZ5
HerLEZ6
HerLEZ7
HerLEZ8
HerLSC1
HerLSC2
HerLSC3
HerLSC4
HerLSC5
HerLSC6
HerLSC7
HerLSC8
HerLSC9
HerLSC10
HerLSC11
HerLSC12

CREDENHILL CP
BELMONT RURAL CP
CLEHONGER CP
HAYWOOD CP
GRAFTON CP
LOWER BULLINGHAM CP
DINEDOR CP
HAMPTON BISHOP CP
HEREFORD

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

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5.1.3 Hereford Fringe Zones (Fig 5-2)

HerFZ 1 The east side of the City is defined by the flood meadows of the River Lugg and its confluence with the Rivers Wye and Frome. The green infrastructure targets in this zone will be **wet grassland**, **wet woodland**, **ponds** and **linear aquatic features**.

HerFZ 2 Due south of the City a mosaic of habitats and mixed agricultural land use has created a diverse character. Green infrastructure provision in this zone will focus on enhancing the character and connectivity of components of the landscape by encouraging the creation of **woodlands**, **orchards** and species-rich **meadows**.

HerFZ 3 South-west of the City and south of the River Wye the landscape continues to be defined by a tradition of **parkland** management. Although much of the historic character is eroded by arable and agricultural intensification, the remnant areas of designed landscape, field and hedgerow trees and built heritage elements suggest this character should be restored and enhanced.

HerFZ 4 North of the River Wye and encompassing the west and north-west periphery of the City the landscape is again comprised of a mosaic of components and land uses. The resultant green infrastructure fringe zone focuses on the predominant components of the landscape; **woodland** and **orchards**.

HerFZ 5 Immediately north of the City, in an area roughly defined by the A49 to the west and the River Lugg flood meadows to the east, the target for green infrastructure enhancement and provision will be the reinforcement of the **orchard** and **meadow** components of the landscape.

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Hereford Fringe Zones

Green Infrastructure Study

Figure 5-2

HerFZ 1 (wet grassland, wet woodland, ponds and linear aquatic features)

HerFZ 2 (woodlands, orchards and meadows)

HerFZ 3 (parkland)

HerFZ 4 (woodland and orchards)

HerFZ 5 (orchards & meadows)

SCALE 1:35000

NORTH

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

HerFZ4

HerFZ5

HerFZ1

HerFZ3

HerFZ2

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5.2 Bromyard

5.2.1 Bromyard Strategic Corridors (Fig 5-3)

BroLSC 1 Due to the historic density of development and settlement within Bromyard, there is little open or green space. An important local corridor remains to the east of the town, along the course of the former railway line and the River Frome. This corridor is partially impeded by industrial development, but has good linkages to open countryside to the north, south and east.

BroLSC 2 Another local corridor peripheral to the town, runs around the north and north-west following the route of the River Frome, Upper and Lower Hardwick Lanes and a network of footpaths. Incorporated in this local corridor is a section of the former Bromyard to Leominster railway line.

5.2.2 Bromyard Enhancement Zones (Fig 5-3)

BroLEZ 1 Located to the east of the town and encompassing land between the A44 and B4203, including the corridor of the former Bromyard and Linton light railway and the River Frome, this zone aims to strengthen and build on existing resources, whilst improving the transition between town and open countryside. Industrial development on the eastern side of the town has both encroached on areas of biodiversity potential and undermined the historic grain of the landscape, introducing visually negative features into the landscape. The following opportunities for green infrastructure enhancement should be sought:

- Develop non-motorised vehicular and pedestrian routes connecting employment areas with residential areas and principal highways and local roads following both the line of the former railway and the River Frome.
- Reinforce the biodiversity value of linear features – the river and railway – to improve opportunities for species migration across the landscape between the town and the Bromyard Downs.
- Create an appropriate and sympathetic green boundary to the settlement and transition to open countryside that reflects the heritage value presented in the Conservation Area and by the numerous listed buildings to the eastern edge of the town.
- Introduce additional tree and shrub planting and other landscaping to reduce the negative visual impact of recent industrial development.

- Develop functional wetland features (ponds, scrapes, ditches and side-drains) adjacent to the River Frome to reduce and mitigate localised flooding. Particular attention should be paid to the possibility of restoring water features associated with any former mill workings.

BroLEZ 2 Centred on the high ground to the south-west of the town, this zone includes land of high visual sensitivity between the A465 and the A44. Some commercial development has extended from Flaggoner's Green along the east side of the B4214, beyond the grounds of the Queen Elizabeth Humanities College and the clear boundaries of the settlement. The following opportunities for green infrastructure enhancement should be sought:

- Introduce tree and hedge-tree planting to reduce the visual impact of recent, and any proposed, development along the ridge-line following the route of the B4214 from Flaggoner's Green.
- Hedgerow planting (particularly damson hedgerows) and positive hedgerow management between the B4214 and A44 should be encouraged to improve the connectivity of linear habitats between the southern and western sides of the town.
- Maintain and enhance connections and habitats between the school grounds, cricket ground and open space north of the Council depot on Hereford Road (A465).
- Realise the opportunity presented by the small area of open space (Flaggoner's Green) as a 'gateway' to the town and partial link to the local strategic corridor (BroLSC 2) identified to the north-west of the town.

BroLEZ 3 A third enhancement zone identified for Bromyard extends across the northern side of the town from the A44 in the west to and beyond the B4214. This area contains the remains of the former arable landscape associated with the historic core of the town. Much of the recent development in Bromyard has extended across this landscape, leaving an abrupt edge between the settlement and open countryside. Any new development in the vicinity should provide green infrastructure to redress this issue by realising the following opportunities:

- Use the historic pattern of land use and enclosure to inform the layout and distribution of new development.
- Preserve and enhance the existing field boundary hedgerows, encourage positive management, plant-up gaps and introduce new hedgerow trees, particularly damson trees.

- Improve the transition between built-form and open countryside by recognising the visual sensitivity of land to the north and the enhancement of habitat connections along the line of the identified local strategic corridor (BroLSC 2).
- Develop non-motorised vehicle and pedestrian access routes, complementing the existing network. Develop linkages across the B4214, ideally utilising the route of the former Bromyard to Leominster railway line, effectively connecting two strategic corridors (BroLSC 1 and 2).
- Create species-rich grassland areas and establish linkages and connections with existing, locally important grasslands to the north and west of the town.

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Bromyard
Local Enhancement Zones and Strategic Corridors

Green Infrastructure Study

Figure 5-3

Local Enhancement Zones

Local Strategic Corridors

SCALE 1:12000

NORTH

BroLEZ 3

BroLEZ 1

BroLEZ 2

BroLSC 1

BroLSC 2

BROMYARD

NORTON CP

ND WINSLOW CP

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

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5.2.3 Bromyard Fringe Zones (Fig 5-4)

BroFZ 1 The east side of the town is dominated by the valley and course of the River Frome and the priority here will be the establishment, preservation and enhancement of **wet grasslands**. Some linear **wet woodland** will also be appropriate.

BroFZ 2 To the south of the town the visually sensitive plateau landscape is a mosaic of **grasslands** and **small woodlands** and this character should be protected and enhanced.

BroFZ 3 North and west of the settlement, again the landscape is of high visual sensitivity and ecological value; the structure and network of **grasslands**, **hedgerows** and **traditional orchards** in this area should influence and inform all new development.

BroFZ 4 A small section of land immediately to the north of the town, adjacent to the primary school and Wimslow Road, has a very distinct character with a network of **hedgerows** and small fields that would benefit from the development of species-rich **grasslands**.

BroFZ 5 To the east of the River Frome corridor the land rises up towards the Bromyard Downs; an area of open **grassland** with a wooded ridge. Below the downs, a network of small, traditional fields are enclosed by mature and species-rich **hedgerows**. The southern edge of the zone is marked by the course of the former Bromyard and Linton Light Railway.

BroFZ 6 Beyond and further south of the railway corridor, the landscape again rises and forms a prominence between the railway and the river. A few smaller fields and dense **hedgerows** exist in this area, but enhancements should be made by encouraging **traditional orchards** and **grasslands**.

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Bromyard Fringe Zones

Green Infrastructure Study

Figure 5-4

BroFZ 1 (wet grasslands and wet woodland)

BroFZ 2 (grasslands and small woodlands)

BroFZ 3 Grasslands, hedgerows and traditional orchards)

BroFZ 4 (hedgerows and grasslands)

BroFZ 5 (grasslands & hedgerows)

BroFZ 6 (grasslands, orchards & hedgerows)

SCALE 1:20000

NORTH

Herefordshire Council

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

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5.3 Kington

5.3.1 Kington Strategic Corridors (Fig 5-5)

KinLSC 1 Due to the topography, geographic location and historic development of Kington, local strategic corridors are limited to the principal watercourses. To the north the corridor of Back Brook and the A44 marks the break between the settlement and steeply rising ground to the north. The corridor includes a number of tracks, paths, small pastoral fields (particularly beyond and to the west of the town) and historic features.

KinLSC 2 To the south of the town the River Arrow effectively forms the southern boundary of the settlement. Again, the corridor includes a number of historic features (including features closely associated with the river), tracks and paths, the recreation ground and a number of grassland sites.

5.3.2 Kington Enhancement Zones (Fig 5-5)

KinLEZ 1 Focused on the southern side of the town, around and to the west of the junction of the A44 and A4111, and including the course of the River Arrow, this zone has been identified in response to the impact of recent development in the area, the sensitivity of the landscape and the need to develop connections with new development beyond the historic core of the settlement. The zone overlaps the strategic corridor of the river (KinLSC 2), which is both a barrier to people movement and an opportunity for ecological connectivity.

- Enhance wetland habitats and features (ponds, ditches and drains) along the course of the River Arrow, particularly in the vicinity of the A44 river crossing.
- Maintain the level of riverside tree cover.
- Through positive management maintain the quality and extent of the hedgerow network alongside development and across open fields.
- Create new paths and access, and improve the existing network of public rights of way between the town, more recent development south of the river and open countryside.

KinLEZ 2 South-west of the settlement, containing the course of the River Arrow, a second area with potential for enhancement exists. This zone includes a number of features including school grounds and sports pitches, Hergest Mill and an extensive network of public rights of way. Enhancement of this zone should include the following:

- Increase the extent of tree cover in hedgerows and along the course of the river.
- Promote and extend the public rights of way network and access to the countryside.
- Develop hedgerow, woodland and other habitat linkages to the west of the zone connecting with Hergest Croft, Haywood Common and Park Wood.

Kington
Local Enhancement Zones and Strategic Corridors

Green Infrastructure Study

Figure 5-5

Local Enhancement Zones

Local Strategic Corridors

SCALE 1:14000

NORTH

KinLSC 1

KinLSC 2

KinLEZ 2

KinLEZ1

KINGTON

KINGTON CP

LYONSHALL CP

Bradnor Hill

Golf Course

Bradnor Green

Headbrook

Sunset

Bredward

Woodbrook

Rushock

Penrhos

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

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5.3.3 Kington Fringe Zones (Fig 5-6)

KinFZ 1 The settlement sits between the River Arrow and Back Brook, west of their confluence. The flood meadows to the north and south of the settlement contain **wet grassland** and **wet woodland** that should be preserved and enhanced.

KinFZ 2 To the north of the settlement, beyond Back Brook and the A44, the rising ground is visually sensitive and contains a number of valued **grassland** sites.

KinFZ 3 To the west of the town, rising ground between the two principal watercourses and beyond the settlement boundary includes a number of **grassland** and **woodland** sites that should be preserved and enhanced.

KinFZ 4 South of the River Arrow the ground again rises and contains many significant **hedgerows** and **hedgerow trees**.

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Kington Fringe Zones

Green Infrastructure Study

Figure 5-6

KinFZ 1 (wet grassland and wet woodland)

KinFZ 2 (grassland)

KinFZ 3 (grassland and woodland)

KinFZ 4 (hedgerows and hedgerow trees)

SCALE 1:15000

NORTH

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

KinFZ1

KinFZ2

KinFZ3

KinFZ4

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5.4 Ledbury

5.4.1 Ledbury Strategic Corridors (Fig 5-7)

LedLSC 1 Ledbury is well provided with green infrastructure and in particular a number of important local corridors. Running through the centre of the town is the route of the former Ledbury to Gloucester branch railway line, now forming the Ledbury Town Walk. A continuous linear green space, footpath and cycle way links Hereford Road in the north, near the railway station, with Little Marcle Road in the south, near to the town cemetery. On route the Town Walk provides easy access to substantial housing areas, the primary school and town centre.

LedLSC 2 A major component of existing green infrastructure provision is the riverside linear park to the west, extending the length of the town along the course of the River Leadon and Leadon Way. The corridor has a continuous footpath and provides a recreational facility for the residents of the more recent housing development to the west of the town.

LedLSC 3 Another important linear green infrastructure asset for the town is the Green Lane to the east of the town following the eastern boundary of Dog Hill Wood. This corridor provides a link to open countryside from the centre of the town (Church Street) with parkland to the east and adjoining ancient semi-natural woodland to the west.

LedLSC 4 The New Mills estate to the west of the town is served by two connected corridors; one links the Town Walk with Leadon Way via a network of footpaths and green spaces, the other is created by green spaces running alongside New Mills Way.

5.4.2 Ledbury Enhancement Zones (Fig 5-7)

LedLEZ 1 North of the railway viaduct, some residential but mainly commercial development has taken place resulting in an extension of the settlement and an abrupt interface between developed land and open countryside. The area is low-lying to the west, where associated with the River Leadon, and rises to the north-east, toward Wellington Heath. Two of the identified local strategic corridors (LedLSC 1 & 2) terminate in this zone, and critically the zone incorporates the route of the former Ledbury to Hereford canal and former railway line. Opportunities for enhancing green infrastructure in this zone should include:

- Support the restoration of the canal to develop a continuous linear aquatic habitat, accompanied by pedestrian and non-motorised vehicular access.
- Protect and expand wet grassland areas and associated features particularly streams, ditches and ponds.
- Restore and replant traditional orchards, predominantly to the east of the zone.
- Create new paths and access, and improve the existing network of public rights of way between the town and open countryside, particularly from the town trail and riverside park.
- Soften the transition from built form to open countryside through the introduction of new linear woodland and hedgerows around any new development.

LedLEZ 2 To the south-west of the town, more intensive agriculture and further commercial development has weakened the pattern and character of the landscape, fragmenting habitats and reducing its ecological integrity. This enhancement zone lies at the termination of the two principal local strategic corridors (LedLSC 1 & 2). The town cemetery, some informal public open space and football pitch to the east of the ring road, and the river and sports grounds to the west all provide opportunities for enhanced green infrastructure:

- Enhance and extend the riverside habitat created as part of the riverside park, to south of the A449; particularly the creation of linear wet woodland.
- Reinstate the historic pattern of field boundaries through the planting of hedgerows, particularly to the south of the ring-road.
- Introduce linear woodland planting along the southern side of the ring-road to mitigate the visual impact of the road and more recent residential development.
- Maintain and enhance the number of small, informal recreational open spaces within the ring-road seeking to improve pedestrian linkages to the centre of the settlement.

Ledbury
Local Enhancement Zones and Strategic Corridors

Green Infrastructure Study

Figure 5-7

Local Enhancement Zones

Local Strategic Corridors

SCALE 1:14000

NORTH

LedLEZ1

LedLEZ 2

LedLSC 1

LedLSC 2

LedLSC 3

LedLSC 4

LEDBURY

LEDBURY CP

Herefordshire Council

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

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5.4.3 Ledbury Fringe Zones (Fig 5-8)

LedFZ 1 The rising ground to the east of the settlement is dominated by woodland, most of which is considered ancient. Maintaining and enhancing the amount and condition of the **woodland** resource to the east of the settlement is a priority for the fringe zone in this area. Areas of **parkland** merge with the woodland to form a landscape rich in habitat and heritage.

LedFZ 2 Further south of the settlement the landscape comprises a mosaic of habitats; including a number of historic land enclosures, ancient and veteran trees, woodlands and dense hedgerows, and has a **parkland** character. Maintaining this homogeneous, but distinct character through continuation of the diversity of elements will be central to green infrastructure provision directly or indirectly resulting from development.

LedFZ 3 The western side of the settlement is associated with the valley and narrow corridor of the River Leadon; as such the target habitats for creation and enhancement along this corridor are **wet grasslands** and **wet woodlands**.

LedFZ 4 Beyond the influence of the river and further west, the land has an 'estate' character with large fields and **hedgerow trees**, **hedgerows** and **grassland**. This zone is also represented in a narrow strip east of the river corridor and west of the parkland zone. Maintaining and enhancing the network of hedgerows and grasslands, particularly south of the Ledbury ring-road, may be an area to focus attention.

LedFZ 5 To the north of the settlement, **traditional orchards** and **grasslands** have become the most significant components of the landscape; their enhancement, expansion and connection will be the principal target of green infrastructure provision.

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Ledbury Fringe Zones

Green Infrastructure Study

Figure 5-8

LedFZ 1 (woodland and parkland)

LedFZ 2 (parkland)

LedFZ 3 (wet grasslands and wet woodlands)

LedFZ 4 (hedgerow trees, hedgerows and grassland)

LedFZ 5 (orchards and grasslands)

SCALE 1:25000

NORTH

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

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5.5 Leominster

5.5.1 Leominster Strategic Corridors (Fig 5-9)

LeoLSC 1 This corridor is formed by the canalised course of the River Lugg flowing from west to east and forming the northern boundary of the settlement; the river is a SSSI. Also included in the alignment of this corridor is the course of the former Leominster to Kington railway. The corridor borders an area of Leominster identified as socially and economically deprived.

LeoLSC 2 The course of the Kenwater, again flowing from west to east and into the River Lugg, links a number of small open spaces east of the town and is accompanied for part of its course by a public right of way. This eastern section of the corridor is also within the Leominster Conservation Area and closely relates to the historic boundary of the Leominster Priory precinct. To the east it includes the Bridge Street Playing Fields. The rich heritage prevalent at the eastern end of the corridor should be used to inform the management and character of open, green space.

LeoLSC 3 A linear park has already been established along the southern edge of Ginhall Lane to the west of the town providing a link to open countryside from near Buckfield House and the Baron's Cross residential area. This corridor should be preserved and enhanced to provide better connectivity and ease of movement for people and wildlife into and out of the town to the north and west. The historic pattern of fields and field boundaries are of great significance to this area and should be preserved and enhanced where possible.

5.5.2 Leominster Enhancement Zones (Fig 5-9)

LeoLEZ 1 Enhancement of green infrastructure to the north of Leominster is proposed to best utilise the existing resources and to help improve the environment in the vicinity of an area identified as socially and economically deprived. The northern boundary of the town has a high level of visual sensitivity, not aided or complemented by the current urban/rural interface and a number of 'industrial' type buildings. The following opportunities should be pursued:

- Maintain and restore the character of a wetland landscape through the reinforcement and restoration of field ditches and drains, marginal vegetation, ponds and wet grassland.

- Develop a linear park following the corridor of the River Lugg and the line of the former railway, improving access to and along its course.
- Introduce 'wetland' trees – black poplar and willow – where possible to both increase the number of boundary and waterside trees and to mitigate the visual impact of recent housing development and industrial buildings.
- Develop the former landfill site as an accessible green space and a small nature conservation area.
- Seek to connect existing semi-natural habitats and features, predominantly to the west of the zones.

LeoLEZ 2 To the north-west of the town, the two northern-most strategic corridors (LeoLSC 1 & 2) again meet and come in close proximity to the third identified corridor (LeoLSC 3) – the linear park along Ginhall Lane. Opportunities to enhance green infrastructure in this area would link these corridors and create a multifunctional buffer of connected green spaces and habitats to the entire northern edge of the town. The following opportunities should be pursued:

- Conserve and enhance the pattern of small-scale fields and orchards to the north of Ginhall Lane.
- Reinstate orchard planting where possible.
- Conserve existing grassland sites and expand the area of species-rich grasslands, particularly to the north of the zone along the course of the Pinsley Brook.
- Continue to develop the linear park to the south side of Ginhall Lane.

LeoLEZ 3 The southern end of Leominster is likely to be the focus of new and continuing development. The possibility of a southern relief road for the town, the further development of the enterprise park and new residential development are being considered. Any and all of this development should be accompanied by enhanced green infrastructure. The following opportunities should be pursued:

- Mitigate the visual impact of development on the landscape through the careful and considered planting of new small woodlands and parkland trees.
- Utilise the historic pattern of enclosure to inform the design structure of new development. Reinstate linear habitats in the landscape through the planting of new hedgerows and hedgerow trees in locations where recent removal can be identified.
- Encourage and ensure the development of connected and integrated landscaping proposals for plots within the Enterprise Park as they are released for development.

- Maintain a well-designed and sensitive green edge to the town resulting from any new residential development, creating a comfortable, useable and ecologically functional area linking the River Lugg to the east with the western edges of the settlement.
- Ensure that new road networks around and through development include corridors for non-motorised vehicles and pedestrians, and wildlife.
- Improve the network of public rights of way, developing and encouraging non-motorised vehicle and pedestrian connections between residential development and employment areas.

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Leominster
Local Enhancement Zones and Strategic Corridors

Green Infrastructure Study

Figure 5-9

Local Enhancement Zones

Local Strategic Corridors

SCALE 1:14000

NORTH

LeoLEZ 1

LeoLSC 1

LeoLEZ 2

LeoLSC 2

LeoLSC 3

LeoLEZ 3

LEOMINSTER

LEOMINSTER CP

Barons' Cross

Newlands

Newtown

The Marsh

Eaton

Eaton Hill

Pinsley Park

Cholstrey

Dismantled Railway

River Arrow

River Lugg

Little Arrow

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

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5.5.3 Leominster Fringe Zones (Fig 5-10)

LeoFZ 1 Immediately to the north and west of the town, and south of the Baron's Cross area to Passa Lane, the landscape is dominated by traditional orchards and small pastoral fields. Some small 'strip' fields remain; fossilised components of earlier common arable systems of agriculture. The area has high visual sensitivity and considerable biodiversity interest. The priority for green infrastructure provision in this area should be the preservation, creation and enhancement of **traditional orchards**, species-rich **grasslands** and traditional **hedgerows**.

LeoFZ 2 To the north, east and south of the town, the influence of the Rivers Lugg and Arrow, the Kenwater and Pinsley Brook are marked; the town, effectively located on a prominence, is surrounded by watercourses and wetlands. **Wet grasslands** and **wet woodlands** will be the priority in this area.

LeoFZ 3 To the south of the town much of the land is of high visual sensitivity, although somewhat degraded ecologically through arable intensification and management. Parts of the landscape have a 'parkland' character with mature hedgerow trees, dispersed across open land. The priority for this area will be to enhance this **parkland** character by restoring and reinforcing the pattern of hedgerows, hedgerow trees and trees in open ground.

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Leominster Fringe Zones

Green Infrastructure Study

Figure 5-10

LeoFZ 1 (orchards, grasslands, and hedgerows)

LeoFZ 2 (wet grasslands and wet woodlands)

LeoFZ 3 (parkland)

SCALE 1:25000

NORTH

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

LeoFZ 1

LeoFZ 2

LeoFZ 3

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5.6 Ross-on-Wye

5.6.1 Ross-on-Wye Strategic Corridors (Fig 5-11)

RosLSC 1 The Town Trail, following the line of the former Ross to Monmouth railway line, provides a substantial and valuable component of green infrastructure to the south-east and south of the town. The path forms the southern boundary of the town and provides alternative transport and recreational links.

RosLSC 2 A broad corridor of green infrastructure extends from the town centre, south-westward along high ground above the River Wye gorge. It incorporates St Mary's churchyard and the grounds of the Royal Hotel, 'The Prospect' and burial ground extensions, the primary school grounds and John Kyrle Walk.

RosLSC 3 The course of the Rudhall brook through the centre of the town, flowing from east to west into the River Wye, forms a significant, although broken corridor. The course of the brook also coincides with a short length of former railway line, east of the town centre, extending a spur of this corridor to the south-east.

5.6.2 Ross-on-Wye Enhancement Zones (Fig 5-11)

RosLEZ 1 The eastern edge of the town has been influenced by recent development and the M50/A40 road corridor to the north. The land in this enhancement zone is closely associated with the course of the Rudhall Brook and is generally low-lying. Although the land has a degree of sensitivity, it has been degraded to an extent by agricultural intensification. Within this zone the priorities for green infrastructure are:

- Introduce extensive woodland and shrub planting along the length of the A40 forming the eastern edge of the settlement to reduce the negative visual impact of the road and the 'hard' edge to the town.
- Enhance the course of the Rudhall Brook by planting riparian trees and bushes.
- Increase the number of wetland features in the landscape, particularly ditches, side streams and ponds and connect them with areas of species-rich wet grassland.
- With reference to historic maps, reinstate the pattern of field enclosure by planting new hedgerows.

- Introduce new orchards using local tree varieties where they historically existed and where they make connections between other new and existing habitats.

RosLEZ 2 The south-eastern edge of the town is formed by the route of the former Hereford to Monmouth railway line, now providing a corridor for biodiversity and people (as identified above RosLSC 1) and a 'soft' edge to the settlement. Beyond and between the wooded hilltop of Penyard Park and Chase Wood the rising ground provides an opportunity for increasing green infrastructure through the following measures:

- Encourage the establishment and positive management of grasslands to establish species-rich sites.
- Introduce traditional orchard planting to appropriate fields.
- Improve the condition of hedgerows through conservation management and gap planting, introducing hedgerow trees where appropriate.
- Promote, protect and enhance the network of public rights of way and paths both along the former railway (the Town Trail) and extending into open countryside.
- Develop new access points to the Town Trail where possible and appropriate.

RosLEZ 3 The south-western end of the settlement is again marked by an abrupt transition to open countryside. The railway corridor extends into open countryside and a network of traditional hedgerows and field parcels remain. Enhancement in this zone should include the following:

- Reinforce and improve the condition of hedgerows through conservation management and gap planting, introducing hedgerow trees where appropriate.
- Encourage the establishment and positive management of grasslands to establish species-rich sites.
- Introduce new tree planting, both in-field and along hedgerows to further soften the transition from the settlement to open countryside, particularly to the east of the zone.

Ross-on-Wye
Local Enhancement Zones and Strategic Corridors

Green Infrastructure Study

Figure 5-11

Local Enhancement Zones

Local Strategic Corridors

SCALE 1:14000

NORTH

RosLEZ 1

RosLEZ 2

RosLEZ 3

RosLSC 1

RosLSC 2

RosLSC 3

BRIDSTOW CP

ROSS-ON-WYE

ROSS RURAL CP

WESTON UNDER PEN

Bridstow

Wilton

Ashfield

Archenfield

Tudorville

Hildersley

Weston under Penyard

Penyard Park

Netherton

Greytree

Blackfields

Three Crosses

Overross

Merrivale

Chase Wood

Cubberley

Hom Green

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

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5.6.3 Ross-on-Wye Fringe Zones (Fig 5-12)

RosFZ 1 The settlement, as the name implies is dominated by the River Wye and abruptly terminates at the river and flood plain to the west. A small area of designed landscape with **parkland** character extends from the south-west into the edge of the town, along the riverside.

RosFZ 2 To the south-west of the settlement, the character of the landscape is defined by a traditional pattern of small fields and well-managed hedgerows; the landscape is considered to be of high visual sensitivity. Green infrastructure provision should be in the form of enhancing and restoring the pattern of fields by planting and positively managing **hedgerows** and creating and enhancing species-rich **grasslands**.

RosFZ 3 To the south-east of the settlement, distinct areas of **grasslands** and traditional **orchards** separate the town from the wooded slopes of the neighbouring hills. Protection and enhancement of these habitats will be a priority.

RosFZ 4 North-east of the settlement, in the vicinity of the Rudhall Brook, the traditional character of the landscape has been partially eroded by arable intensification. Green infrastructure objectives in this area will include the restoration and repair of the character and connectivity of habitats through the provision of traditional **orchards** and the restoration of **wet grasslands**.

RosFZ 5 Due north of the settlement the creation, enhancement and restoration of traditional **orchards** and species-rich **grasslands** will be targeted. This reflects the long-standing and traditional land use and visual sensitivity of the area.

RosFZ 6 Beyond RosFZ 3 to the south-east, the land rises up to the wooded hilltop and Penyard Park and Chase Wood. This area is predominantly **woodland** and the character and assets should be preserved and enhanced.

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Ross-On-Wye Fringe Zones

Green Infrastructure Study

Figure 5-12

RosFZ 1 (parkland)

RosFZ 2 (hedgerows and grasslands)

RosFZ 3 (grasslands and orchards)

RosFZ 4 (orchards and wet grasslands)

RosFZ 5 (orchards and grasslands)

RosFZ 6 (woodland)

SCALE 1:30000

NORTH

Herefordshire Council

Herefordshire Council
Conservation
PO BOX 4
Plough Lane
HR4 0XH

Tel.: (01432) 260000
Fax.: (01432) 383031

RosFZ5

RosFZ4

RosFZ3

RosFZ1

RosFZ2

RosFZ6

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6.0 GUIDING PRINCIPLES FOR GREEN INFRASTRUCTURE PROVISION

6.1 Introduction

In order to aid the delivery of green infrastructure across the county, and particularly through new development, a series of guiding principles have been developed. These principles are not intended to represent a definitive list, constitute a 'design manual' or form a 'checklist'. They are intended to engage planners, developers and decision makers in identifying opportunities, to promote standards and make informed decisions regarding green infrastructure provision.

6.2 General Policy and Vision

The developing Core Strategy for Herefordshire contains a preferred policy direction for Green Infrastructure.

The preferred policies will:

- Ensure that new developments are designed in a way that enhances Herefordshire's green infrastructure, for example through linking into existing green networks, addressing climate change or enhancing biodiversity.
- Seek positive contributions for green infrastructure proposals, particularly in areas where there is an identified need, through the Infrastructure Delivery Policy.

It will be important to seek opportunities to create multi-functional green infrastructure, to meet social, economic and environmental needs. In order to deliver a green infrastructure policy, it will be helpful to consider guiding principles for the key issues identified in paragraph 2.3.13.

- Natural assets
- Biodiversity
- Landscape
- Cultural and Historic Environment
- Access and Recreation
- Urban Green Space

6.3 Natural Assets Principles

The natural assets, whether geological, topographical, ecological or hydrological, are at the heart of the green infrastructure of the County. From the smallest, local sites and assets to the internationally recognised features, the network and presence of natural assets require both protection and enhancement.

The following green infrastructure principles are proposed to promote the preservation and enhancement of the natural assets of the county:

- Green infrastructure should contribute to natural processes, systems and services, and improve local environments
- Natural assets should be protected from the adverse impacts of development
- The extent of natural assets and the connectivity, or potential for connectivity, should be enhanced by development

6.4 Biodiversity and Geodiversity Principles

The biodiversity and geodiversity resources of the county have been identified in the Council's *Building Biodiversity into Herefordshire's Local Development Framework* (2009). Green infrastructure provision should seek to strengthen these assets, working to increase their robustness to accommodate change.

The following green infrastructure principles are proposed to promote the preservation and enhancement of the biodiversity and geodiversity resource:

- Avoid damage to existing designated sites and seek opportunities for their enhancement
- Seek a net gain of Biodiversity Action Plan (BAP) habitats, and enhancement of habitats for BAP species
- Protect and enhance wildlife corridors, to aid species migration and dispersal
- Seek opportunities for habitat creation, expansion and restoration in appropriate locations, especially to improve connectivity

6.5 Landscape Principles

It is important that Herefordshire embraces the European Landscape Convention premise that all landscapes matter and maintains the landscape character of the county. The Council's *Urban Fringe Sensitivity Study* (2009) has assessed the visual sensitivity of the landscapes around Hereford and the market towns; green infrastructure provision can enhance the potential for these landscapes to accommodate new development.

The following principles are proposed to promote the preservation and enhancement of the Herefordshire landscape:

- Recognise that all landscapes matter, integrating landscape into relevant policies in accordance with the European Landscape Convention
- Use the Landscape Character Assessment of Herefordshire to inform the provision and management of green infrastructure that recognises local landscape character
- Seek opportunities to protect, maintain and enhance designated areas
- Continue assessment of condition and change in landscapes, and realise its value as an integrating framework

6.6 Cultural and Historic Environment Principles

Herefordshire has a rich and varied archaeological and historic heritage. Preserving and creating green infrastructure around these assets will be an important mechanism for maintaining this aspect of the local distinctiveness of Herefordshire.

The following principles are proposed to promote the preservation and enhancement of the cultural and historic environment:

- Protect and enhance designated and non-designated historic assets and their settings and the contribution they make to the present day landscape
- Seek opportunities for the restoration or re-creation of historic landscapes, through use of the Historic Landscape Characterisation of Herefordshire
- Restore and appropriately manage historic parks and gardens and other historic sites
- Utilise historic urban character in managing change

6.7 Access & Recreation Principles

It is widely recognised that the natural environment and recreation play an important role in health and well-being. Providing nearby opportunities for recreation as well as connecting urban settlements with the wider countryside is an important function of green infrastructure.

The following principles are proposed to promote the preservation and enhancement of the provision for access and recreation in the County:

- Safeguard and enhance existing formal and informal recreation facilities and sites
- Seek opportunities to create new recreational facilities, particularly where need has been identified
- Recognise the importance of green routes in providing health benefits and recreation opportunities

6.8 Urban Green Space Principles

Urban green space, perhaps the most accessible and publicly beneficial green infrastructure asset, also faces the greatest pressures and diversity of uses. As mentioned in 6.2 above, it will need a multi-functional approach that addresses the following issues

The following principles are proposed to promote the preservation and enhancement of urban green space within Hereford and the market towns:

- Ensure community engagement with green space ownership
- Safeguard, create and enhance ecological connectivity between green spaces and the wider countryside
- Create urban green space that is adaptable and robust
- Ensure accessibility for all sectors
- Promote and deliver education opportunities within urban green space

7.0 DELIVERING THE GREEN INFRASTRUCTURE NETWORK

7.1 General

This document currently provides an evidence base for the Local Development Framework Core Strategy, indicating a strategic approach to accommodating green infrastructure. It will need to be expanded upon at a later date to contribute towards the studies required for Area Action Plans. The promotion of green infrastructure at all levels will be a key mechanism for delivering sustainable communities and benefits to quality of life.

7.2 The delivery of green infrastructure

This part of the green infrastructure strategy addresses the potential and possible mechanisms for delivering an improved, multifunctional landscape through development, initiatives, partnerships and projects. The aspirations of the strategy are considered to be realistic and targeted concepts, developed in part through the iterative process of researching and forming the strategy, and from similar examples and initiatives enacted elsewhere. The spatial planning process will provide one of the delivery mechanisms with policies and proposals being advanced within the Local Development Framework and associated documents. The process for this has started and the Core Strategy envisages including policies upon green infrastructure.

In the future it would be beneficial to prepare ‘design guidance’ for planners and developers that will incorporate the following:

- Wildlife habitat enhancement, creation and links
- Countryside access routes
- River ways
- Greening of transport corridors
- Open space and recreation facilities
- New housing design
- Industrial and commercial development
- Sustainable Drainage Systems (SuDS)
- Development edge treatment

Other delivery mechanisms are available and described under 7.3 below.

7.3 Projects & Partners

The following list includes examples of projects that might come forward and the potential partners that could be involved. The list is **not** exhaustive or exclusive and will certainly be added to in the future.

- Utilising opportunities to increase tree cover and green space within urban areas e.g. 'Green Streets'
  Potential key partners: Herefordshire Council, Edgar Street Grid Herefordshire Ltd, developers and architects

- Protecting, enhancing and creating orchards e.g. Orchard Biodiversity Project
  Potential key partners: Herefordshire Council, Natural England, Herefordshire Nature Trust

- Creating woodland landscapes
  Potential key partners: Forestry Commission, Woodland Trust, National Trust, Natural England, Herefordshire Nature Trust

- Provision of green infrastructure as part of highway and access improvements e.g. Connect2 – Greenway; a 'Hereford Wheel' – a pedestrian and non-motorised access route around the perimeter of Hereford with access 'spokes' to the city centre
  Potential key partners: Herefordshire Council, Sustrans, Woodland Trust, HNT, Edgar Street Grid Herefordshire Ltd

- Reducing health inequalities through provision of green infrastructure in areas where need is identified
  Potential key partners: Herefordshire Primary Care Trust, Herefordshire Council, Natural England

- Using the environment to increase understanding and education opportunities
  Potential key partners: Education sector, Herefordshire Council

- Herefordshire Parklands
  Potential key partners: National Trust, Woodland Trust, Gardens Trust, Natural England, Herefordshire Nature Trust

- 'Herefordshire Wetlands' landscapes
  Potential key partners: Environment Agency, Natural England, Herefordshire Nature Trust

- Commons and moors landscapes e.g. the Community Commons Project

Potential key partners: Natural England, Herefordshire Nature Trust, Herefordshire Council

7.4 Stakeholder and Community Engagement

An important aspect of the future successful promotion and delivery of green infrastructure in the County will be engaging with local communities and key stakeholders. Examples of what might be utilised include:

- Presentations
- Workshops
- Community consultation and 'Planning for real' events

7.5 Next steps

The future development of the strategy should be illustrated with examples of green infrastructure, graphic representations of design principles and exemplary projects and initiatives from outside and within the county. When this information has been gathered, it will be added to this report.

Guidance for planners and developers

The incorporation of the following features within the design of new development will contribute to the provision of green infrastructure

- Wildlife habitat enhancement, creation and links
- Countryside access routes
- River ways
- Greening of transport corridors
- Open space and recreation facilities
- New housing design
- Industrial and commercial development
- Sustainable Drainage Systems (SuDS)
- Development edge treatment

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REFERENCES TO FOLLOW

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Appendix A – Town Setting Descriptions

Hereford

The historic origins of the city lie to the north bank of the River Wye, west of the confluence with the River Lugg. The city has expanded along the riverside and along the major transport routes in and out of the city. To the north-east nineteenth century development occupied the higher ground of Aylestone Hill, and from the early part of the century, south of the river. Higher ground exists to the north and south of the city, and east on the far side of the River Lugg. The terraces of the River Wye to the west of the city, and higher ground beyond, complete the enclosure of Hereford. The overall effect of the surrounding topography is the impression that Hereford sits in a shallow bowl at the very heart of the county.

Mixed agricultural land use surrounds the city, but dominant uses characterise the cardinal quarters of the city's hinterlands; to the east, broad expanses of flood meadow either side of the Rivers Wye and Lugg with rising ground occupied by grand houses beyond; to the north, nineteenth century enclosure and intensive arable production; to the west, a combination of intensive arable use on the lighter, most fertile soils and orchards on the poorer; to the south, a true mix of arable, pastoral and orchard uses with woodland on higher slopes.

From the surrounding high ground, views of the city are unspoilt by tall modern buildings; only the tower of the cathedral and spire of All Saint's church noticeably pierce the skyline. The rich pink-red stone, brick, clay tile and slate of traditional building materials, interspersed with matures trees – both native and exotic – gives the city a soft, warm character. The city and surrounding landscape is introspective, focussed on the cathedral and heart of the city.

Bromyard

Located above the River Frome to the south, the town has an historic core orientated on an east-west axis, with the church at the north-western quarter. The town is established on prominent land characteristic of much of the surrounding plateau landscape. Industrial buildings occupy the eastern and northern aspects of the town, following the line of the former Worcester to Leominster railway. The A44 runs along the southern edge of the historic town with a modern extension to the settlement further to the south.

The surrounding landscape is dominated to the east by the 'Bromyard Downs'; an area of common land rising to high ground with the Brockhampton estate beyond. The undulating topography of the Bromyard plateau has a distinct and picturesque quality, unique in the county, formed by a pattern of mixed land use, medium scale fields, dense hedgerows and 'dingle' woodlands – particularly in the declivities between steeper hills – estate lands and manor farms, woodlands and commons.

Kington

The town sits in a declivity in surrounding hills formed, in the main, by the River Arrow to the south of the town and its tributary, Back Brook to the north. Steep slopes and high ground to the north and west

provide a backdrop to the town and a sense of shelter pervades. Kington, of all the Herefordshire market towns, has the most pronounced 'border' character, truly functioning as a portal between England and Wales.

To the north and west of the town, the upland areas of Bradnor Hill and Hergest Ridge respectively have a remote character in stark contrast with the fertile and intimate landscapes of the valleys and lowlands surrounding the town. Typical of many towns on the England/Wales border, a close-knit network of streets and lanes, and a dense pattern of development lacking extensive open spaces define the character Kington. To the north, on rising ground, St Mary's Church and castle hill create a gentle transition between town and country; elsewhere the change is abrupt, particularly to the east.

Surrounding countryside to the east and south is sparsely wooded, but has an ancient character formed by many dense hedgerows, a pattern of small, mainly pastoral, fields and a scattering of traditional agricultural buildings. To the north and east of the town the recent impact of a revised highways network to alleviate the pressure of traffic on the centre of the town has not fully assimilated with the historic character of the landscape; further modern introductions to this landscape continue to depart and detract from the perimeters of Kington.

Ledbury

The upstanding mass of the Malvern Hills range forms the eastern boundary of the town and provides a predominantly wooded backdrop to the many fine buildings at the historic centre of the town. To the west, the River Leadon and its accompanying flood meadows form the boundary of the town. The Worcester to Hereford railway line and industrial development marks the northern boundaries of the town. The southern aspect is defined by historic parkland and a gently undulating topography of sandstone hills.

The landscape to the east and north is dominated by a steep topography and accompanying wooded hillsides. To the west, fertile and free draining soils have been exploited by increasingly intensified arable production. To the south, the historic character of the landscape is preserved in the number of pastoral fields still in existence, dense hedgerows and woodlands, resulting in an 'estateland' character. 'Polytunnel' agriculture is a noticeable modern addition to the landscape surrounding Ledbury to the north, west and south.

Leominster

The town originated on rising ground to the west of the River Lugg, north of the River Arrow. Dominated by the precinct of the twelfth century priory, the town developed concentrically to the west, then along the principal transport routes. Nineteenth century development occupies high ground to the west of the town centre with exotic tree planting of the former Buckfield House and Archer House most prominent. The 'coxcomb' of Wellingtonia on the Leominster skyline is one of the defining characteristics of the town.

To the north, east and south are low lying areas of land associated with the riverine corridors of the Kenwater, Lugg and Arrow respectively; land principally used for mixed agricultural purposes, but marked by large pastures, pollard willows and ditches and minor drains. Some orchards exist to the south of the town. In and around the town are a number of buildings of traditional 'black and white' timber construction – a defining characteristic of the area. West of Leominster the topography forms a small plateau, gently bisected by minor streams and watercourses, with a predominantly arable land use. Larger, modern industrial buildings, the railway line to Hereford and the A49 trunk road disfigure the southern aspect of the town.

The organic growth of the town, the variety of – mainly domestic – building types and styles, mature trees and vegetation and the surrounding mixed agricultural land use mark Leominster as a rural market town with close associations with the wider countryside beyond. Modernisation of the southern quarter of the town and changing, intensifying land use is creating a poorer distinction between the densely settled historic core of the town and the wider countryside.

Ross on Wye

The historic core of the town lies on the east bank of a tight meander in the River Wye, occupying a strategic location above the river and adjacent terrestrial transport networks. The densely developed core of the town, centred on the market place and Broad Street, is in contrast with the open spaces and more sparse development along the top of the river 'cliff'.

To the south-east of the town the land rises to the now wooded hills of Penyard Park and the Iron Age hilltop enclosure at Chase Wood. More recent development to the north and south of the town has created the impression of a linear settlement, parallel with the river, contrary to its' earlier form. The M50/A449 has brought industrial/commercial development to the north edge of the settlement.

The landscape to the east of the town is defined by the shallow valley of the Rudhall Brook and gently rising ground to Western under Penyard. Similarly to the south of the town, the landscape is a mosaic of small fields and gently undulating ground to Coughton Marsh. The course of the River Wye remains the dominant feature in the landscape, with the steep 'cliffs' to both east and west bank affording recognised picturesque views across the surrounding landscape.

Appendix B – Technical Summary

Much of the data collected for the Green Infrastructure Study has been created for other specific purposes and applications and may not easily lend itself to analysis. It should be born in mind that not all potential green infrastructure resources have been mapped. The age of some Geographic Information System (GIS) data may introduce anomalies or inaccuracies; for example, Ordnance Survey 'Mastermap' data was last updated in 2003. Land use will naturally change over time and GIS may not be able to keep abreast of all changes, particularly in rapidly changing environments and systems.

The table below summarises the subjects contained in the study, providing a brief description of the characteristics of the subjects, assessing the completeness of data, the source of information and the likely application of the information. The table is intended to be used as a reference tool for identifying the sources of information used in the study, the occurrence and type of assets considered and information on data providers. The table suggests the type of asset identified – either a 'node' or a 'corridor', or whether the resource is generic, appearing across the county, within a district or locally – in relation to likely application in the developing green infrastructure strategy.

Validation of the accuracy and quality of information collected for this study has necessarily been basic and more-involved analysis of quality and accuracy, supported by field investigations, are outside the scope of the study. Data validation covered the following points:

- Completeness of coverage within each subset, and identification of further data that may be of use in future green infrastructure work.
- Age of data
- Brief analysis of the quality of data and apportionment of a 'level of confidence'
- Original format received (paper, electronic, etc.)
- Discussion with data custodians
- Comparison of datasets received from HC with externally available datasets to assess accuracy and currency of data

In preparing new datasets the following issues were considered:

- Colour conformity and rationalization within datasets
- Establishment of ranking system where appropriate
- GIS creation where gaps identified
- Recommendation of superiority of datasets where duplication occurs

Appendix C - Glossary

ANGSt
Accessible Natural Greenspace Standards – a four level spatial typology used by Natural England

Area Action Plan (AAP)
A form of Development Plan Document or DPD, which sets out proposals and policies for the development of a specific area

Blue infrastructure
This term is sometimes used to describe riverine and coastal environments with a green infrastructure network

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

Ecosystem services
The essential services and benefits that are derived from a fully functioning natural environment, including the management of basic resources such as water, and the sequestration of carbon

European Landscape Convention (ELC)
This seeks to protect landscapes in law, with consideration given to landscape from the earliest stages in the planning process. The UK became a signatory to the Convention in February 2006 (ratified in November 2006)

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

GI
Commonly used acronym for green infrastructure

Green Flag Award
The national standard or ‘benchmark’ for parks and greenspaces within England and Wales

Green infrastructure
Refer to definition on page

Green infrastructure study
A report that assimilates baseline information for green infrastructure for a given location, e.g. local standards, initiatives and establishment of environmental character. Such a study may go as far as investigating deficiency and need based on projected growth, and identifying opportunities

Green infrastructure strategy
Building on the green infrastructure study approach, developing a GI hierarchy and identification/prioritisation/phasing of projects through an Action Plan or

Implementation Strategy (usually developed after the completion of the Strategy and which often provides information on capital and revenue costs, management needs, funding streams and delivery partners, although this varies with the scale of the strategy). Also sometimes referred to as a Green Infrastructure Plan, and often forming an evidence base for SPD/AAP

Growth Point
Growth Points are a means by which local authorities can pursue large scale, sustainable growth, in partnership with central government and other local partners. They are based on four key principles, and these are:

i) early delivery of housing as part of the growth plans;
ii) supporting local partners to achieve sustainable growth;
iii) working with local partners to ensure that infrastructure and service provision keep pace with growth; and
iv) ensuring effective delivery

Greenspace
A key component of a green infrastructure network, often classified within the typology devised by Planning Policy Guidance 17 (PPG17): Planning for Open Space, Sport and Recreation

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

Implementation Plan
This often forms part of a Green Infrastructure Strategy, and identifies funding streams and partners to deliver green infrastructure projects. In some cases capital and revenue cost estimates are provided, together with outline phasing. Implementation plans can also form stand-alone documents and are sometimes called Action Plans, Business Plans or Intervention Plans

Landscape
'…an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors' (source: European Landscape Convention or ELC)

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

Local area agreement (LAA)
These set out the priorities for a local area agreed between central government and a local area (the local authority and Local Strategic Partnership

Local Strategic Partnership (LSP)
Multi-agency, non-statutory partnerships, which match local authority boundaries. They bring together different components of the public, private, community and

voluntary sectors, allowing different initiatives and services to support one another with the aim of more effective joint working

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

Peri urban
The transition between rural and urban landscapes, or the interface between landscape and townscape. Sometimes also referred to as the urban-rural fringe, and by Nan Fairbrother as the 'green-urban' environment

Revenue costs
Costs associated with ongoing management and maintenance of green infrastructure

ROWIP
Rights of Way Improvement Plan – a statutory responsibility introduced by the Countryside and Rights of Way (CROW) Act 2000. Now subsumed within Local Transport Plans

SINC
Site of importance for nature conservation – a local nature conservation designation (for sites within the city of Hereford)

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

SWS
Special wildlife site - a local nature conservation designation (for sites outside the city of Hereford)

Appendix D: Data Summary Table

Resource	Features	Data source and completeness/extent	Accuracy	Type	Edition/ acquired date	Green Infrastructure application
Topography	• Contour mapping and digital terrain mapping	• Supplied by Geosense Ltd.; countywide	High (vertical error in height data to 1m (root mean square error))	Generic	2004	• Physical characteristics • Local distinctiveness • Environmental constraint
Geology	• Hard rock deposits generally located in upland areas; sand and gravel generally located in lowlands and river corridors	• British Geological Society; recognised deposits, but county only partially surveyed	High	Node	N/a	• Physical characteristics • Local distinctiveness • Environmental constraint • Potential resource for leisure, recreation, education, access, etc.
	• 37 GCRs predominantly in the north	• Earth Heritage Trust; countywide	Poor, 100m+ point location	Node	2007	
	• 21 geological SSSIs	• Earth Heritage Trust; countywide	Poor, 100m+ point location	Node	2007	
	• 117 RIGS	• Earth Heritage Trust; countywide	Poor, 100m+ point location	Node	2007	
Hydrology	• Main rivers, flood risk zones, flood storage areas, historic flooding maps, ground water vulnerability and source protection zones as recognised by the Environment Agency	• Environment Agency; countywide	High (although flooding data is dated)	Generic/ Corridor	2006/07	• Physical characteristics • Environmental constraint • Biodiversity corridor
Biodiversity	• Internationally and nationally designated sites identified for their habitat value or rarity, or associated species. Condition and 'direction of change' information available (SAC (6), SSSI (76), NNR (3))	• Herefordshire Council (verified by comparison with Natural England data); countywide	High	Node/ Corridor	Est. 2006	
	• 1021 identified Ancient Semi-Natural Woodland sites (only woodlands in excess of 2	• Herefordshire Council (verified by comparison with Natural England	High – excludes small woodlands of ecological importance	Node	Est. 2006	• Physical characteristics • Environmental constraint • Biodiversity corridor or node

Resource	Features	Data source and completeness/extent	Accuracy	Type	Edition/ acquired date	Green Infrastructure application
	hectares are recorded	data); countywide				• Potential resource for leisure, recreation, education, access, etc. • Ecological buffer
	• Locally designated sites identified for their habitat value or rarity, or associated species (SWS (709), SINC (56), LNR (7))	• Herefordshire Council	Good – SWS and SINC review underway, but survival and condition of some sites may be questionable	Node/ Corridor	Est. 2006	
	• 51 Herefordshire Nature Trust Reserves	• Herefordshire Council (verified by comparison with HNT records); countywide	Good	Node	2007	
Land Use	• 77 waste and landfill sites	• Herefordshire Council & DEFRA; countywide, partial assessment	High	Node	2007	• Environmental constraint • Biodiversity corridor or node • Potential resource for leisure, recreation, education, access, etc. • Local distinctiveness
	• 6 main towns and 60 main villages	• Herefordshire Council identified in UDP; countywide	Good (possible revision of settlement hierarchy in developing LDF?)	Generic	2007	
	• Commons	• Herefordshire Council constraints mapping; localised	Good	Node	2007	
	• Employment zones	• Herefordshire Council identified in UDP; localised	Good (Observation)	Node	2007	
	• Quarries	• Herefordshire Council identified in UDP; localised	Good	Node	2007	
Access & Movement	• Main, secondary and minor roads	• Ordnance Survey; countywide	High	Corridor	2004	• Biodiversity corridor or node • Potential resource for leisure, recreation, education, access, etc.
	• Railways and stations	• Ordnance Survey; countywide	Good	Corridor	2007	

Resource	Features	Data source and completeness/extent	Accuracy	Type	Edition/ acquired date	Green Infrastructure application
	• Public Rights of Way, cycle routes (Sustrans routes 44 &46), national & long-distance paths and promoted walks	• Ordnance Survey & Herefordshire RoWIP; countywide	Good	Corridor	2007	• Cultural associations and landscape character
	• Disused and abandoned transport routes; canals, railways and tramlines	• New dataset created from Ordnance Survey and Herefordshire Council GIS; localised	Good	Corridor	2008	
	• Access Land	• Natural England; localised	High	Node	2007	
Archaeology, Historical & Cultural	• 266 Scheduled Ancient Monuments	• English Heritage; countywide	High	Node	2007	• Biodiversity corridor or node • Cultural associations and landscape character • Local distinctiveness • Environmental constraint
	• 5833 Listed Buildings and 23 Registered Historic Parks & Gardens	• English Heritage and Herefordshire Council; countywide	Good	Node	2007	
	• 63 Conservation Areas & 1 Area of Archaeological Importance	• Herefordshire Council; localised	Good	Node	2007	
	• 178 Un-registered Historic Parks & Gardens	• Herefordshire Council; localised	Good	Node	2001	
	• Visitor attractions and cultural attractors	• Anecdotal; countywide	Poor (un-mapped)	Generic	n/a	
Landscape Character	• 7 National Character Areas	• Natural England; countywide	Good	Generic	2007	• Local distinctiveness • Cultural associations and landscape character
	• Herefordshire Council Landscape Character Assessment, 12 Sub-regional character areas and 22 local landscape types	• Herefordshire Council; countywide	Good	Generic	2004	

Resource	Features	Data source and completeness/extent	Accuracy	Type	Edition/ acquired date	Green Infrastructure application
	• Malvern Hills and Wye Valley AONBs	• Natural England; countywide	Good	Generic	2007	
Designated & Accessible Open Space	• PPG17 Open spaces audit • 66 Protected Open Spaces (note: some duplication/crossover with data contained in 'Access & Movement')	• Herefordshire Council; incomplete; countywide • Herefordshire Council identified in UDP; localised	Poor Good	Node/ Corridor Node/ Corridor	2007 2007	• Local distinctiveness • Biodiversity corridor or node • Potential resource for leisure, recreation, education, access, etc. • Environmental constraint

Notes

GIS accuracy: High – closely related to OS Mastermap and clear boundaries of feature relate closely to physical parameters; also a high level of confidence in the original mapping process and source of information.

Good – created data or layer relating to 1:10k OS raster mapping; also general confidence in source and quality of mapped resource.

Poor – point data not reflecting extent or parameters of resource and based on OS1:50k grid reference; also anecdotal source or lack of confidence in original mapping.