

Planning for Landscape, Biodiversity and the Historic Environment in the development of Green Infrastructure Strategies in Worcestershire

TECHNICAL RESEARCH PAPER



Note: Throughout this paper the term Green Infrastructure (GI) refers to a strategically planned and managed network of green spaces and related environmental features

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worcestershire
county council

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Introduction

Purpose

The development and delivery of green infrastructure strategies is a complex and challenging task that requires support at all levels, national, regional and local. It is key that the implementation points and strategic opportunities set out in GI strategies are delivered through the planning and development process and this can best be achieved through the adoption of appropriate policies by districts and boroughs in their Local Development Frameworks (LDF's). **The purpose of this report is to introduce the concept of Green Infrastructure (GI) and to identify the key themes that Worcestershire County Council's Strategic Planning and Environmental Policy, Archaeology teams, Natural England together with the Forestry Commission can assist with in addressing the matter in Worcestershire.**

This paper will also act as a signpost for those who are involved in the development of GI strategies and other planning and environmental policy to areas of advice and guidance. **As will be demonstrated, GI is a multifunctional concept but this paper concentrates on those matters to which the team have expertise and are core to the work of partners namely Ecological Sustainability, Landscape Character, Biodiversity, Natural Processes and Historic Environment.**

Audience

This paper is one of a series of technical briefing papers prepared by Worcestershire County Council to assist the preparation of responses to the review of the Regional Spatial Strategy, Community Strategies and to assist in the preparation of Local Development Documents.

A key stage in delivering the benefits of a multifunctional green infrastructure network should be the development of a dedicated strategy that will shape the initial stages of development and the processes that accompany it such as master planning. The green infrastructure strategy should be underpinned by a green infrastructure study that is derived from analysis and interpretation of the available evidence base. This paper provides the audience with the sources of evidence required/expected to be used in the preparation of any GI in Worcestershire with regard to Landscape, Biodiversity and the Historic Environment.

It is intended that this report will support Local Planning Authorities (LPA) and other organisations involved in the development of Green Infrastructure (GI) strategies and as such the primary audience are the LPA's within Worcestershire but this paper will also be of interest to the development industry, utility companies the Local Strategic Partnership members and anybody with an interest in how to plan for GI in Worcestershire.

The format of this paper

The paper provides an introduction to the concept of GI including the grey-green continuum before moving on to discuss the importance of GI and its multifunctional role in delivering benefits for the environment and society.

The need for the preparation of GI strategies and the scale at which they should be prepared is then identified. The key national policy drivers that support GI are summarised with further signposting included within Annex 1. Linkages to initiatives and supporting policies with a particular Worcestershire context are also outlined. Signposting to examples of best practice and guidance from a range of statutory organisations and NGO's are included within appendix 2.

A suggested approach to the development of GI within Worcestershire is then illustrated including the identification of a group of themes or topics that should be considered within a GI strategy. Sources of baseline information within a Worcestershire context that can help develop these themes (including Landscape Character, Biodiversity and Historic Environment) are included.

Other papers of interest produced by the Strategic Planning and Environmental Policy Team are:

- Planning for Climate Change in Worcestershire – Technical Guidance Paper (2008)
- Planning for Water in Worcestershire – Technical Guidance Paper (2009) with Severn Trent Water and the Environment Agency
- Planning for Renewable Energy in Worcestershire – Technical Guidance Paper (2009)
- Planning for Soils in Worcestershire – Technical Guidance Paper (Due Summer 2009)

Note: the paper intends to be a useful tool to policy makers but does not diminish the need for the reader to be alert to both existing and emerging evidence and policy upon Green Infrastructure.

What is Green Infrastructure?

The West Midlands Green Infrastructure Prospectus defines GI as:

Green Infrastructure is the network of green spaces and natural elements that intersperse and connect our cities, towns and villages. It is the open spaces, waterways, gardens, woodlands, green corridors, wildlife habitats, street trees, natural heritage and open countryside. Green Infrastructure provides multiple benefits for the economy, the environment and people.

Green Infrastructure may also be seen as part of the life-support system of an area; providing functions and environmental services to a community, such as employment, recreation, physical health and mental well-being, social interaction, contact with nature, drainage and flood management, climate change adaptation and pollution control. It may be considered the essence of local character and sense of place, the very heart of a community, or dear to the hearts of many thousands some distance away.

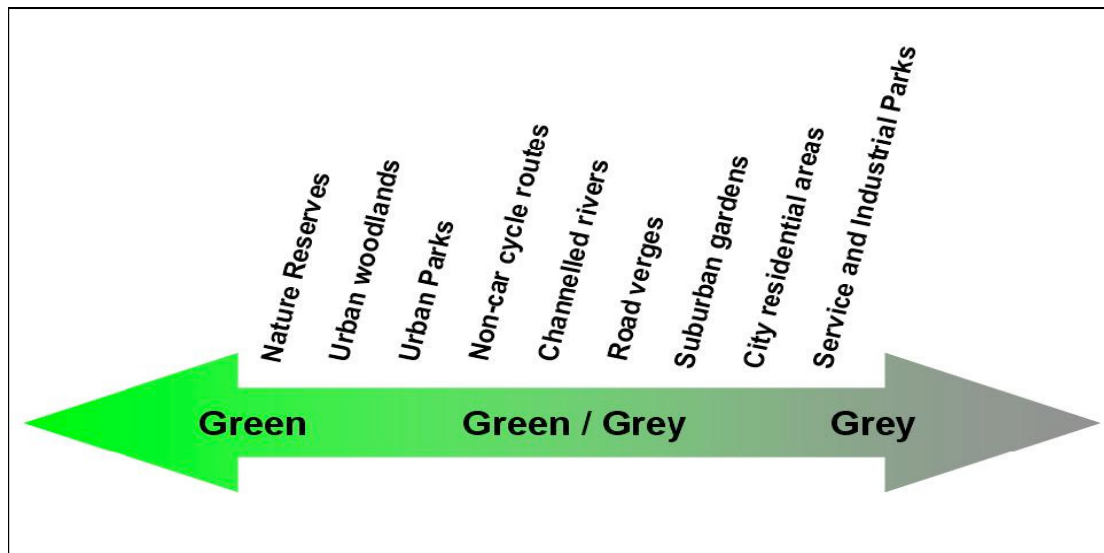
It spans administrative and political boundaries; it is publicly and privately owned, and it may be semi-natural or man-made in its origins. It may be green, brown or blue – think of canals or derelict land, woodlands in winter or ploughed fields. It may be wrapped around by houses, schools, factories or commercial properties.

In urban situations it complements and balances the built environment; in rural settings it provides a framework for sustainable economies and biodiversity; in-between it links town and country and interconnects wider environmental processes.

GI should as far as possible provide an integrated infrastructure for multi functional uses i.e., wildlife, leisure and cultural experience, delivering environmental services such as flood protection and local climate amelioration that operates at all spatial scales from the urban neighbourhood to the open countryside. The provision of GI is seen as an essential element in delivering a high quality of life for both existing and new communities, creating locally distinctive and quality built environment ('sense of place') and environmental improvements to the existing built environment and public realm assets.

There is a grey-green continuum of thinking relating to concepts surrounding 'infrastructure', although 'green' can be used to denote the function or facility provided by an element, even if it is not strictly 'green' in land use terms. It is suggested therefore that the definition of 'grey' as fundamentally distinct from 'green' may not be altogether helpful, and that, like a colour chart, we can move through a range of shades in the middle is grey/green e.g. cycleways.

Elements that might be classed as 'grey', but which contribute to the wider functioning of green infrastructure should be treated as part of the green infrastructure network. Grey infrastructure, such as bus routes, rail lines, canals should be made to integrate with green infrastructure networks rather than vice-versa.



Source: Green Infrastructure Planning Guide Version 1.1 - English Nature 2006

Why is GI important in Worcestershire?

Green Infrastructure provides the following benefits to communities within the county:

- Facilitates the delivery of multiple objectives
- Provides a multi-functional network of open spaces and ecological networks at all scales, from regional (and where possible inter-regional) to neighbourhood scale.
- Can shape the growth of sustainable communities
- Forms an integral part of the planning system
- As with 'Grey Infrastructure' needs to be planned to meet the existing and future needs of communities.

Some of which have been expanded on below:

Quality of Life

GI is a critical component of urban infrastructure and provides a positive and visionary way to conceptualise greenspace planning in an urban context. Green infrastructure is recognised for its improvement of the “liveability”¹ of areas; improving quality, values and their attractiveness to residents, employees, visitors and investors and promoting physical and mental well-being through its use and enjoyment. In developing GI strategies we have an opportunity to create places that not only function sustainably but also are very attractive places to live and work and foster a strong sense of community and civic pride.

¹ Liveability has been defined in terms of interaction between a community and the environment.

Habitats

Wildlife and natural ecological processes are more likely to be maintained in landscapes/locations that comprise an interconnected system of habitats, than in landscapes where habitats occur as dispersed; ecologically isolated fragments. GI is a means of achieving a more effective pattern of habitats in man-made landscapes, to ensure ecological connectivity and to secure the ecological processes they contribute to and depend on. Promoting connectivity of habitats must operate in tandem with other measures to expand that area of protected habitats, maximize the quality of existing habitats and minimize harmful impacts from surrounding land uses. Green infrastructure will enable wildlife to adapt to future climate change scenarios by providing a more permeable landscape. In order to adapt to future climate scenarios our wildlife requires a more permeable landscape that better allows the movement and migration of species as their climate-space shifts. A better-connected mosaic of habitats and ecosystems will help to prevent a collapse in biodiversity that may otherwise be inevitable¹.

GI planning should not be regarded merely as a way of providing improved open space networks nor should it be seen as something that can be assembled simply from parcels of marginal land not needed or wanted for housing. But should be viewed as a mechanism for better informed decision-making and 'joined-up' thinking to promote environmental sustainability by local and landscape scale environmental planning.

Climate Change

An example of the multifunctionality of GI strategies is in the potential for GI to help mitigate and adapt to future climate change. Green infrastructure can provide benefits in both mitigation of and adaptation toward climate change

- Providing shading and a natural cooling effect to helping to counter rising temperatures and the 'urban heat island' through parks, open space, water bodies, street trees and green roofs.
- Providing space for flood attenuation and SUDS schemes helping to absorb excess rainfall and prevent run-off and surface flooding.
- Providing vegetation to store carbon and reduce air pollution.
- Creating environments and infrastructure that encourage sustainable methods of transport such as walking and cycling thus reducing emissions of greenhouse gases.
- Providing the space for renewable energy technologies such as ground source heat pumps and through sustainably managed sources of biomass, especially wood produced from sustainable management of local woodlands, for heating and combined heat and power schemes.

Why do a Green Infrastructure Strategy and at what scale?

The benefits and cross cutting themes of GI have been outlined above, however the development of a GI strategy is also supported by policies at the international, national and regional level and through guidance produced by Government,

statutory bodies and NGOs. A green infrastructure strategy should therefore be utilised as part of the evidence base for the development of local strategies and policies.

Green Infrastructure strategies should be planned for at a range of different scales Strategic Level, District Authority, Growth Area/Point and Master Planning for individual sites and this will enable the identification of projects at a local level that can deliver local benefits whilst also contributing to targets at a sub regional, regional and national level. This will also include the need to work in partnership with neighbouring authorities to deliver connected and multifunctional landscapes. Green Infrastructure strategies should not only identify physical linkages but also the linkages between dimensions of sustainability (as identified above with regard to climate change) and the potential benefits to quality of life, whilst also recognising and incorporating overlapping areas of policy.

Green infrastructure should be a *primary* consideration in the preparation of strategic plans right through to the master planning and design of new developments. The strategic planning of GI requires a co-coordinated approach from a multidisciplinary and cross-organisational team in order to create a successful GI strategy this will require local authorities, national agencies, landowners and to work together to implement the strategy.

Policy Support

Planning policy at national and regional levels both supports and encourages the development of green infrastructure strategies and the inclusion of policies within local planning authorities own policies and plans. An outline of national and regional policy is provided in appendix 1.

As PPS 1 'Delivering Sustainable Development' notes sustainable development is the core principle underpinning planning and Regional planning bodies and local planning authorities are required to "ensure that development plans promote outcomes in which environmental, economic and social objectives are achieved together over time".

This strategic importance is emphasised in PPS 12 which states that '*core strategies 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.*'

How should GI be done in Worcestershire?

In developing GI strategies a proven means of analysis has been to divide the baseline information into a series of strategic themes. The division of the component elements of GI into discrete themes or topics is a proven approach advocated by this paper.

Key GI themes are:

- *Landscape Character*
- *Historic Environment*
- *Biodiversity*
- *Recreation and Tourism*
- *Natural Processes*
- *Structural Greenspace (other greenspace such as private gardens, cemeteries, church yards).*
- *Access and Movement*

Landscape Character - This theme covers the landscape and visual aspects of green infrastructure, influenced by and influencing the physical form of the landscape and the effect of subsequent human activity upon it. Landscape character strongly influences our perception and enjoyment of green spaces as destinations and as settings to new and existing settlements and movement routes.

Historic Environment - This theme covers the contribution of the historic environment to Worcester's green infrastructure. The historic environment influences landscape character and provides significant areas of multi-functional open space such as parkland, gardens and battlefields, while the provision of green infrastructure can protect below ground archaeology and the settings of historic features from the pressures of development.

Biodiversity - Biodiversity is the entire variety of life on earth at every level of function, from genes and microorganisms, individual species and communities of species, to complex habitats and ecosystems.

The maintenance and enhancement of biodiversity is a fundamental function of green infrastructure; almost all forms of green infrastructure have the potential to contribute to the conservation of biodiversity, both directly, from providing specific habitat types for rare and specialist species, to enabling wildlife to move through the landscape, and indirectly, by raising awareness through enabling people to experience and better appreciate their natural environment.

Landscapes and open spaces planned to promote connectivity for spaces, their communities and the integrity of ecological processes are a key element in nature and biodiversity conservation.

Recreation and Tourism - Green infrastructure resources provide a wide range of recreation and tourism functions, from neighbourhood scale sports pitches and play areas to features serving wider catchments such as primary municipal parks, country parks, water sports centres, racecourses and equestrian centres. Green infrastructure offers opportunities for healthy living, which can contribute to government targets in the reduction of obesity and ill health and it is recognised that recreation in green spaces contributes to mental well-being. Recreation and tourism also has the potential to generate much-needed revenue income to maintain green infrastructure resources through, for example, entry fees, fishing licences, cycle hire, events or café profits.

Natural Processes - Environmental systems and the natural processes that drive them are critical functions that must be taken into account to ensure the "liveability" of new developments and their wider landscapes. Green infrastructure has the potential

to assist new and existing development by harmonising with these processes and using them to the benefit of the built and natural environment and the people who live there. Examples of these benefits include flood amelioration, water cycling and purification, air quality, soil formation, carbon capture, urban cooling, ecosystem services², health, quality of life, sense of place and, cultural heritage.

Structural greenspace - refers to the network of open space that delivers multi-functional value in a local context. Examples include incidental open space (public parks, playing fields, cemeteries, gardens, playgrounds, urban squares and plazas), transport corridors, private parkland and managed farmland. Urban and rural communities have a fragmented network of greenspace and habitats at both a small and medium scale that can deliver benefits for the environment including urban cooling, biodiversity, species migration, aesthetic & well being, food and recreation. These fragmented areas may include urban woodlands, street trees, public spaces, landscaping, brownfield land, churchyards and cemeteries, allotments and gardens or new innovations in greenspace such as green roofs and living walls.

It should be noted that the potential value and enhanced benefits from greenspace depends upon the nature of how they are managed and financial resources available for good management. Many examples are in poor condition, with threats and pressures working against their full potential.

Access and Movement -Green infrastructure offers significant opportunities to provide sustainable movement, for example by walking, cycling horse riding or canal boating. The benefits of these modes of transport are particularly recognised within urban areas for the reduction of traffic congestion and air pollution, in addition to the reduction of carbon dioxide emissions.

Within urban areas walking and cycling have the most benefit for short journeys such as between residential areas and retail or employment areas and can be combined with public transport where facilities exist. Access to greenspace is conducive to mental wellbeing and this can provide significant incentives to walk along attractive green routes to workplaces compared to car journeys on congested roads.

Sources of Baseline Information within Worcestershire for themes of Landscape Character, Biodiversity and Historic Environment

The development of Green Infrastructure Strategies should be informed by robust data.

In performing its various functions Worcestershire County Council's Strategic Planning and Environmental Policy and Archaeology teams have gained valuable knowledge in the theme areas previously outlined and can provide assistance in the development of baseline information, analysis, mapping and strategic framework planning. An overview of the knowledge and expertise that partners to this paper can provide in the development of GI strategies is provided below.

² For further information on ecosystem services <http://www.ecosystems-services.org.uk/>

Theme: Landscape Character Assessment

Why:

Landscape provides the spatial context and basic framework for green infrastructure. The landscape input to the green infrastructure strategy process in Worcestershire is derived predominantly from the county's Landscape Character Assessment (LCA). The Worcestershire assessment identifies 22 Landscape Types across the county, each defined by a particular representation of geology, topography, soils, tree cover, land use and settlement pattern.

The interpreted LCA landscape green infrastructure data should be the first point of reference for considering the landscape from a GI perspective, as this is a *systematically interpreted appraisal of the key landscape attributes that, we feel, contribute to GI.*

Key Policy Documents and tools:

- Planning Policy Statement 1: Delivering Sustainable Development
- Planning Policy Statement 7: Sustainable Development in Rural Areas
- Landscape Character Assessment – A new look at the landscapes of Worcestershire
- Worcestershire Landscape Character Assessment: Process, Products and its Role in the Planning System
- Natural England's policy position statement on landscape

Data & Advice available:

A countywide assessment of landscape condition has recently been completed (September 2008). This assessment analysed the visibility of three main landscape attributes – tree cover pattern, field boundaries and enclosure patterns and scored each landscape unit according to how well represented these attributes are on the ground today. In combination, these three attributes provide an indication of the landscape's current condition and its contribution towards green infrastructure. The scores for each attribute were added together and the overall score used to classify each area as having a high, medium or low existing contribution towards green infrastructure. Maps and/or GIS illustrating the results of this analysis can be provided upon request, in addition to the accompanying technical documentation that explains more fully the process of condition assessment.

However it should be noted that whilst the Landscapes for Living assessment has produced 'landscape green infrastructure' maps of the condition of hedgerows and tree cover they provide only a general indicator of habitat connectivity with respect to these two features.

Landscape Character Assessment is an objective, descriptive process and so cannot provide guidance on the potential visual impacts of change in the landscape, as this needs to be assessed with reference to the type and extent of proposed change. General guidance on potential visual impacts – and visual

impact assessment methodology – can be provided if broad areas or sites are identified.

The full Worcestershire LCA can be accessed at www.worcestershire.gov.uk/lca. This site provides:

- Background information
- National context
- Interactive maps
- Database access
- Technical documentation and other publications
- Advice sheets for each Landscape type providing general guidance on landscape issues for development and land management.

The additional information provided on the website which includes site-specific LDU profiles etc. is better used as a reference tool when looking on a site level or when needing to refer to a specific area of group of areas.

Theme: Biodiversity

Why:

Our biodiversity is facing global challenges such as climate change and there is overwhelming evidence that, in common with the rest of the UK Worcestershire has suffered huge losses of habitats and species. It is imperative that plans, policies and strategies produced in the county take all possible steps to protect, maintain and enhance and create biodiverse habitats. This can be achieved through the:

- Incorporation of international, national, regional and local legislation, strategy and policy guidance contexts, including the UK Government and Worcestershire Biodiversity Action Plans.
- Analysis and interpretation of habitat and land-use data (WHI and LCA Ecological Profiles).
- Interpretation of biological data (data from WBRC).
- Identification of Statutory and non-statutory designated sites and areas.

Key Policy Documents and tools:

- Planning Policy Statement 1: Delivering Sustainable Development
- Planning Policy Statement 9: Biodiversity and Geological Conservation
- West Midlands Biodiversity Partnership – Enhancing Biodiversity Across the West Midlands
- West Midlands Regional Biodiversity Opportunity Map
- Worcestershire Biodiversity Action Plan
- Worcestershire Habitat Inventory

Data and advice available:

Habitat and land-use data analysis – The Worcestershire Habitat Inventory (WHI)

WHI is a field-by-field GIS database of habitat and land-use data with entire county coverage. The data is derived from digitisation of all existing available datasets, a systematic field-by-field aerial photo interpretation survey (derived from a late summer 2005 flight) and limited, targeted ground survey. Mapping was completed in spring 2008. Data capture will be ongoing and it is hoped that a re-survey will be undertaken based on a 2010 aerial photoset.

The GIS functionality enables full integration of habitat and land-use data with other available electronic datasets that have a spatial element, for example other environmental, species (WBRC), archaeological, socio-economic and demographic datasets.

Analysis of the WHI will commence in early 2009. This will provide interpreted spatial datasets and mapping that will enable, for example, identification of habitat networks, habitat creation potential, opportunities and priority mapping, identification of key existing green infrastructure biodiversity elements and requirement for additional GI elements to connect, expand and buffer the existing resource.

The WHI analysis outputs will inform the county level *Landscapes for Living* project; provide underpinning information that will enable better informed strategic and operational land-use-change decision-making; enable improved monitoring and reporting of land-use and environmental change and; will inform BAP targeting, monitoring and reporting. This in turn will enable improved local authority adherence to statutory duties and policy obligations.

Simplified and interpreted versions of the WHI will be provided for non-ecologists; for example Local Planning Authorities and the general public.

LDU and LCP Ecological Profiles and Biodiversity grades

At a strategic/desk study level, this data classifies discrete areas of the county (LDUs), showing, in a county context, whether they are of low, below average, medium, above average or high biodiversity importance. When augmented with WHI and species (WBRC) data, this data can be used to determine the likely degree of biodiversity constraint to development for any area of the county. Data is also available for LCPs; however this is yet to be digitised. In the meantime the LCP data can be manually assimilated.

Information and Advice available (Worcestershire Biodiversity Partnership / BAP Manager):

Landscapes for Living

The Landscapes for Living initiative in Worcestershire aims to develop a future vision for biodiversity in Worcestershire and to engage with a wide range of sectors to help deliver that vision. It is envisaged that a map or maps will be prepared (based on analysis of the WHI as described above) along with a vision statement. A key principle to the project is connecting the biodiversity sector's vision with the priorities and aspirations of other sectors including health and economic regeneration. At the regional level maps and guidance have been produced looking at regional opportunity mapping for biodiversity, and the BAP managers can advise on where to access the regional information and latest progress.

The Worcestershire Biodiversity Action Plan identifies priority habitats and species important within the county, setting targets for their conservation and outlining the actions needed for achieving those targets. The BAP is being delivered by a partnership of organisations that represent statutory, charitable and private sector groups, all committed to conserving and enhancing biodiversity within the county.

One of the main aims of the Worcestershire Biodiversity Action Plan is to assess how the limited resources available can best be used to protect and enhance what remains allowing species and habitats to adapt. The 2nd edition of the county BAP was launched in July 2008 and gives nature conservation targets for the period 2008-2017.

There are 47 Action Plans within the Worcestershire BAP: 19 habitats, 25 species and three generic action plans covering overarching themes:

- Biological recording and information
- Biodiversity education, awareness and involvement
- Policy, grants and legislation.

Each plan gives an overview of the current status of the habitat or species within the county, identifies particular threats to it and current areas of work or activity being undertaken by partner organisations. The plan then presents targets for maintenance, restoration, expansion or creation (as appropriate) for the conservation of that habitat or species, followed by a list of actions that the Biodiversity Partnership should take to achieve these targets. The revised BAP will be delivered through a partnership approach over the next ten years.

It is imperative that plans, policies and strategies produced in the county having the potential to impact on biodiversity take all possible steps to not only protect the existing biodiversity resource but to enhance what is currently there and take opportunities to create new high quality natural habitats for people and wildlife to share. This should be done in line with the targets within the Biodiversity Action Plan. It is also essential that up-to-date biological data be sought as part of the development of Green Infrastructure strategies. The **Worcestershire Biological Records Centre** should be consulted at the earliest possible stage in the process.

Worcester Woodland Guidelines and Woodland Opportunity Mapping

Worcestershire Woodland Guidelines provides guidance on the landscape and biodiversity aspects of woodland planting and management in Worcestershire. The guidance presents the 'ideal' for landscape and ecology practises, and is intended to help create new woodland or manage existing woodland in a way which compliments or improves the current woodland landscape character and ecology of the county.

The Landscape elements of this guidance are based on the Landscape Character Assessment for Worcestershire, and the ecological zones are derived from work to identify Natural Areas for Worcestershire.

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The guidance is in the form of two maps and accompanying information and guidance notes. The first map shows Worcestershire Landscape Types, the second Worcestershire Ecological Zones. Accompanying each Landscape Zone and Ecological Type is text providing detailed recommendations on the pattern, size and location of woodland planting, along with advice on which species to choose to best reflect the natural woodland communities prevalent in the area.

The Worcestershire Woodland Guidelines will be available via the internet from 1st June 2009 at www.worcestershire.gov.uk/biodiversity/woodguide.

In addition to the information provided in this guidance a broader regional context to woodland creation is provided by the Regional Woodland Opportunities Map. The map looks at the potential for woodland creation across the West Midlands Region within four theme areas – landscape, biodiversity, cultural heritage and access. For each of these themes, maps of the region are provided which divide the Region into three zones for woodland creation – ‘preferred’, ‘neutral’ and ‘sensitive’ (where woodland creation is not targeted). However at the site level it is still possible that woodland could be appropriate in sensitive areas. The Woodland Opportunities Map is available on the Forestry Commission website (<http://www.forestry.gov.uk/forestry/infid-6n4gz>) and it is recommended that it is considered in addition to the information provided in the Worcestershire Woodland Guidelines.

Theme: The Historic Environment

Why:

A regard for the historic environment (comprising historic buildings, landscapes and buried archaeology) is an integral part of Green Infrastructure Studies as recognised by government guidance. The present landscape has been heavily shaped by its past historic uses. The historic character is of intrinsic interest as helping define the special character of Worcester and providing important amenity and, educational and tourism value - but can also have an intimate relationship to the management issues within the natural environment in influencing habitats and contexts for biodiversity.

It is unfortunate that requests for historic environment input to studies such as Green Infrastructure almost invariably initially assume that this information simply consists of nationally designated assets. These actually comprise only a small percentage of the recorded historic assets of national, regional and local significance in the county and the information is site specific rather than containing spatial assessment. The purpose of input into the Green Infrastructure Strategies is to identify key sites and historic landscapes and to assess their capacity for change. This will include both specific features (whether standing monuments or buried remains) and the ‘grain’ of the historic landscape as reflected in its field patterns and land-use. For example, some of the field patterns in Worcestershire date back to the Bronze Age (1500BC)

Baseline & Advice Available

The baseline information for any strategic study of the historic environment will include the following (all held by the County Historic Environment Service)

- County Historic Environment Record. A Geographical Information System which contains
 - Details on all known archaeological sites, monuments and discoveries from prehistoric to World War II
 - Information on historic buildings (both listed and non-listed).
 - Layers of historic mapping (19th century tithe and enclosure maps, 1st edition OS maps)
 - Comprehensive collection of aerial photographs
 - Index to past and current research

This is a dynamic record with over 20,000 entries, continually updated as a result of results of interventions in the planning process and from other research.

- Mapping of historic landscapes - Historic Landscape Characterisation project part of a national programme funded by English Heritage is designed to complement the existing county Landscape Characterisation (as a mapping of the current landscape).
- The above sources will feed into a countywide Historic Character Assessment that will provide an index of sensitivity to change. English Heritage has funded the development of a countywide methodology for the latter (based on partial surveys elsewhere) and work will proceed across the county as funding becomes available from the Districts.
- The Service also undertakes thematic surveys to improve strategic input into the management process. This currently includes a Historic Farmsteads Survey and an assessment of the archaeological potential of the gravel terraces of the River Severn.

Other information is also held by District Conservation Services. A key feature of the proposed Heritage Act is to improve integration of such sources by requiring them to be accessible through the County Historic Environment Record (in turn to be made accessible through offices of the LPA).

The Historic Environment and Archaeology Service provide development control advice on the historic environment to Worcestershire County and District Councils (excepting Worcester City, which has its own service) and support to English Heritage on the management of Scheduled Ancient Monuments. Although District Conservation Officers provide advice to their Authorities on listed buildings, it is the County Historic Environment Service that provides much of the advice on non-listed buildings, together with briefs for building recording. The Service also provides strategic advice, inputting to a variety of studies such as RSS and Green Infrastructure, as far as its resources allow.

The Service contains specialists in

- Historic environment management
- Historic environment records
- Historic buildings
- Finds analysis
- Environmental archaeology
- Outreach

It will be appreciated that this Service is currently entirely funded by Worcestershire County Council, with support from external funding. This inevitably means that funding from the Districts may well be sought for substantive pieces of work and early contact is advised so that such work can be planned efficiently into the work programme. The recognition of a need to maximise the use of this local expertise between the local authorities of Worcestershire is a principal driver towards the development of a more formal shared service between County and Districts, stimulated by the government plans for Heritage Protection Reform.

Staff work closely with District Conservation staff and together they provide unmatched expertise in the local historic environment. The baseline data from strategic studies such as GIS has necessarily has to be supplied by the Historic Environment Record and associated resources (for which there may be a charge) and staff of the Historic Environment Service have a responsibility to comment upon finished reports. Where there has not been sufficient consultation this has frequently involved substantial (and therefore costly) re-drafting.

It is therefore suggested that Districts approach the Service at the earliest possible opportunity to establish the scope and methodology for historic environment input to Green Infrastructure Studies or similar. This will ensure consistency of approach and also enable the local authorities to deliver cost-effective solutions to delivering such studies.

It is also important to ensure that time and resources are provided to allow the assessments from the historic and natural environment specialists to be combined in the final reports to provide an overall sensitivity index to change.

Theme: Recreation and Tourism

Why should recreation and tourism be considered?

Recreation and tourism brings a key social dimension to Green Infrastructure. It allows local people and visitors to engage with the natural environment and to experience first-hand the biodiversity, landscape and history of an area. Green infrastructure provides for a wealth of opportunities involving people from all walks of life, both formally and informally. The opportunities encompass the full range of Green Infrastructure; from parks and gardens, to footpaths and cycleways. Providing a recreation resource allows people to build a respect for the natural and built environment, and to maximise the benefits of a healthy lifestyle.

Worcestershire is well-placed to build on its qualities as a recreation and tourism destination. Much of the County's tourism revenue can be attributed to the appeal of its green and open spaces and adopting a Green Infrastructure approach can ensure that these qualities are preserved and enhanced.

Green Infrastructure should recognise the need for the appropriate management of sensitive sites. There are some elements of the Green Infrastructure resource that need to balance appropriate access to ensure their special qualities are not eroded through misuse. Similarly, there are significant resources which continue to be under-utilised, and green infrastructure planning can help to ensure that people can access high quality green space for relaxation, exercise and learning.

Key policy documents

- Worcestershire Countryside Access and Recreation Strategy (March 2004) (this Strategy is currently being revised as the Access and Informal Recreation Strategy, and is due to be adopted by the Parks and Countryside Task Group later in 2009).
- A Rights of Way Improvement Plan for Worcestershire 2007-2017, Worcestershire County Council
- Destination Worcestershire Tourism Strategy 2008, Destination Worcestershire

Data available

A map showing the location of key facilities is included within the Countryside and Recreation Strategy (CARS). This will be updated when the strategy is refreshed during 2009-10. The CARS (to be renamed the Access and Informal Recreation Strategy) is currently available at

<http://worcestershire.whub.org.uk/home/wccindex/wcc-countryside/wcc-countryside-about/wcc-countryside-service-strategies/wcc-countryside-service-cars.htm?highlightTerm=countryside%20access%20and%20recreation%20strategy>

An electronic version of the Definitive Map of Public Rights of Way (and many other recreation facilities) can be found at

<http://worcestershire.whub.org.uk/home/wccindex/wcc-countryside/wcc-countryside-rights/wcc-countryside-rights-deffmap.htm>

Summary and next stages

The aim of this document is to introduce the concepts surrounding the development of GI strategies and to identify the key themes that Worcestershire County Councils Strategic Planning and Environmental Policy and Archaeology teams and partner organisations including Natural England and the Forestry Commission can contribute toward in the development of GI strategies.

Stage 2 - will be to identify the potential theme leads/stakeholders and the contribution that they can make to the development of GI strategies and the policy, tools and guidance that should be utilised. These other potential themes should include:

- Recreation & Tourism – Countryside Access and Recreation Strategy/Rights of Way Improvement Plan/PPS 17 Audits/ANGST/Provision of Rights of Way Implementation Plans
- Natural Processes – Strategic Flood Risk Assessments, Air Quality Management Plans and the forthcoming Planning for Soils – Technical Guidance Paper
- Structural Greenspace – Biodiversity Action Plans/Conservation Area Appraisals/TPO Registers
- Access and Movement – Local Transport Plans/Provision of Rights of Way Implementation Plans

This will enable the provision of links to existing documents and from this information characterisation maps that identify key habitats, designated sites, open space, rights of way, sites of historic and archaeological importance, deficiencies and needs in relation to GI functions should also be identified along with an initial assessment of opportunities.

Stage 3 - Will then focus on locations for growth by defining the GI assets that are of importance for specific localities, which can then be used to underpin consideration of what aspects and functions a wider GI strategy would encompass through a combination of protection, maintenance, enhancement, creation and critically the linking of these assets.

Stage 4 - This will then enable the analysis and integration of topics and themes for a more holistic approach to mapping at a strategic level and subsequently at a local level to inform masterplanning and may in future inform the development of detailed guidance on implementation, delivery and design through either Area Action Plans or SPD's.

Stage 5 – To ensure the delivery of the Green infrastructure strategy it will be necessary to prepare an implementation plan that will identify capital, revenue and funding streams and link these to delivery partners or stakeholders.

Appendix 1 – Policy Support

National Policy

PPS1 - States that:

Planning policies should seek to protect and enhance the quality, character and amenity value of the countryside and urban areas as a whole. A high level of protection should be given to most valued townscapes and landscapes, wildlife habitats and natural resources

The multifunctionality of the natural environment is recognised in PPS1, which notes that *“the condition of our surroundings has a direct impact on the quality of life and the conservation and improvement of the natural and built environment brings social and economic benefit for local communities”*.

Planning authorities are required to take account of environmental issues such as:

“The protection of the wider countryside and the impact of development on landscape quality; the conservation and enhancement of wildlife species and habitats and the promotion of biodiversity; the need to improve the built and natural environment in and around urban areas and rural settlements, including the provision of good quality open space”

PPS 9 – states that:

Plan policies and planning decisions should aim to maintain, and enhance, restore or add to biodiversity and geological conservation interests”. In taking decisions, local planning authorities should ensure that appropriate weight is attached to designated sites of international, national and local importance; protected species; and to biodiversity and geological interests within the wider environment.

Plan policies on the form and location of development should take a strategic approach to the conservation, enhancement and restoration of biodiversity and geology, and recognise the contributions that sites, areas and features, both individually and in combination, make to conserve these resources.

Plan policies should promote opportunities for the incorporation of beneficial biodiversity and geological features within the design of development.

PPS11 – states that:

The RSS should provide a broad development strategy for the region for a fifteen to twenty year period and should take into account ***priorities for the environment, such as countryside and biodiversity protection.***

The RSS should also “address regional or sub-regional issues that will often cross county or unitary authority and, on occasion, district boundaries”.

PPS12 - Planning Policy Statement 12 defines green infrastructure as ‘a network of multi-functional green space, both new and existing, both rural and urban, which supports the natural and ecological processes and is integral to the health and quality of life of sustainable communities’. It goes on to state that the local planning authority ‘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.’

PPG 17 – states that:

Open space and sports and recreational facilities that are of high quality or of particular value to a local community, should be recognised and given protection by local authorities through appropriate policies in plans. Areas of particular quality may include:

iii. Areas of open space that particularly benefit wildlife and biodiversity.

With regard to development in Open Spaces PPG 17 states that Local authorities should:

iv. Consider the impact of any development on biodiversity and nature conservation.

In planning for new open space and sports and recreational facilities PPG 17 notes that “*The countryside around towns provides a valuable resource for the provision of sport and recreation, particularly in situations where there is an absence of land in urban areas to meet provision and that local authorities should encourage the creation of sports and recreational facilities in such areas and the development of areas of managed countryside, such as country parks, community forests, and agricultural showground’s*”.

The annex to PPG 17 states that:

Local authorities should also recognise that most areas of open space can perform multiple functions. They should take account of the various functions of open space when applying the policies in this document. These include:

iv. Havens and habitats for flora and fauna: sites may also have potential to be corridors or stepping stones from one habitat to another and may contribute towards achieving objectives set out in local biodiversity action plans;

Regional Policy

The phase 2 revisions of the RSS contains policies that aim to support the protection, enhancement and creation of green infrastructure whilst recognising the multifunctionality of these environments and the potential for them to contribute toward both mitigation and adaptation of future climate change.

Policy SR1 B states that local authorities, agencies and others shall include policies and proposals in their plans and strategies to:

Enhance, link and extend natural habitats so that the opportunities for species migration are not precluded and biodiversity can adapt to climate change and hence help to mitigate its affects by reducing 'heat islands', acting as carbon 'sinks', absorbing flood water and providing renewable energy

Policy SR2 E requires that local authorities, agencies and others in their spatial plans, strategies and programmes make provision for a range of spatial requirements needed to create sustainable communities, including the requirement:

For a comprehensive green infrastructure network that provides the full range of environmental services, including mitigation and adaptation to a changing climate, accessible greenspace for walking and cycling, sport and recreation, health and wellbeing and protects, consolidates and enhances biodiversity and geodiversity, especially the Region's European sites, and its historic landscape character

Phase 3 revisions to the RSS will include the Quality of the Environment chapter however existing policies within RSS phase 2 seek to protect, conserve and enhance the natural environment.

Paragraph 8.15 recognises the importance of maintaining, enhancing and where possible increasing the amount of greenspace and how this can provide opportunities for sport, recreation and biodiversity can contribute toward urban renaissance.

Policy QE4 A requires local authorities and other agencies to undertake assessments of local need and audits of provision, and develop appropriate strategies for the adequate provision of accessible greenspace by measures such as *increasing the overall stock of urban trees*.

Whilst policy QE4 B states that development plans should create and enhance urban greenspace networks by:

Ensuring that adequate protection is given to key features such as parks, footpaths and Cycleways, river valleys, canals and open spaces:

Identifying the areas where new physical linkages between these areas need to be forged and

Linking new urban greenspace to the wider countryside to encourage the spread of species.

Further policies within the Quality of the Environment chapter of the RSS should also be considered in the development of green infrastructure strategies including:

- Policy QE5 Protection and enhancement of the Historic Environment
- Policy QE6 The Conservation, Enhancement and Restoration of the Region's Landscape
- Policy QE7 Protecting, Managing and Enhancing the Region's Biodiversity and Nature Conservation Resources

- Policy QE8 Forestry and Woodlands
- Policy QE9 The Water Environment
- Policy M1 Mineral Working for Non-Energy Minerals

Appendix 2 – Key Sources of Advice and Guidance

National

- Eco Towns green infrastructure worksheet – The Town and Country Planning Association
- Biodiversity by Design, A Guide for Sustainable Communities – The Town and Country Planning Association
- A Living Landscape – The Wildlife Trusts
- Green Infrastructure Planning Guide Version 1.1 – Groundwork, Forestry Commission, English Nature.
- Accessible Natural Greenspace Standards - Promoting the Natural Green structure of Towns and Cities, English Nature
- Green space Strategies: A Good Practice Guide, *CABE Space*
- Six Acre Standard: *National Playing Fields Association*
- Space for People Targeting action for woodland access: *Woodland Trust*

Regional

- Creating Successful Green Infrastructure Strategies – Best Practice From The East Midlands And The River Nene Regional Park
- Cambridgeshire Horizons – Green Infrastructure Strategy
- Enhancing Biodiversity Across the West Midlands – West Midlands Biodiversity Partnership, Natural England.
- Green Infrastructure - A Prospectus for the West Midlands – West Midlands Regional Assembly
- [Green Infrastructure for the West Midlands Region: Technical Mapping Paper \(TEP for WMRA, 2007\)](#)
- North West Green Infrastructure Guide, Version: 1.1 – The North West Green Infrastructure Guide
- Planning Sustainable Communities – A Green Infrastructure Guide for Milton Keynes & the South Midlands

Appendix 3 - Key Contacts

Contact details:

Biodiversity

Vaughan Grantham
Principle Biodiversity and Landscape Officer
Worcestershire County Council

01905 766877

VGrantham@worcestershire.gov.uk

Biodiversity Action Plan

Alexandra Kinnersley or Rebecca Lashley

01905 766852

biodiversity@worcestershire.gov.uk

Landscape Character

Jess Allen or Jane Patton
Conservation and Landscape Officer (Job share)
Worcestershire County Council

01905 766038

landscape@worcestershire.gov.uk

Historic Environment

Malcolm Atkin
Manager, Historic Environment and Archaeology Service
Worcestershire County Council,
Woodbury
University of Worcester
Henwick Grove
Worcestershire County Council
WR2 6 AJ

matkin@worcestershire.gov.uk

Recreation & Tourism

For information on the Countryside Access and Recreation Strategy, contact Principal Planner, Ben Horovitz, on 01905 766097 (bhorovitz@worcestershire.gov.uk)

For information and advice on public rights of way and creating waymarked trails, contact the Countryside Service on 01905 768289 (countryside@worcestershire.gov.uk)

For information on informal parks, natural greenspace and community greenspace, contact the Countryside Service on 01905 768289 (countryside@worcestershire.gov.uk)