

Planning for Landscape in Worcestershire

LANDSCAPE CHARACTER ASSESSMENT



**Process, Products and its Role
in the Planning System.**

This document is the third in the Worcestershire
Landscape Character Assessment portfolio



June 2008

Worcestershire Landscape Character Assessment

Process, Products and its Role in the Planning System

The third document in the
Worcestershire Landscape Character Assessment portfolio:

The Worcestershire Landscape Character Assessment portfolio:

Shaping the New Worcestershire

Draft Worcestershire Landscape Character Assessment ~ Supplementary Planning Guidance¹

1999
209 pages

A New Look at the Landscapes of Worcestershire

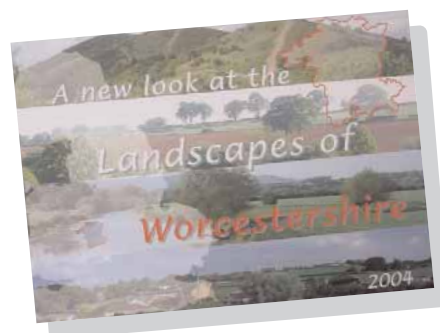
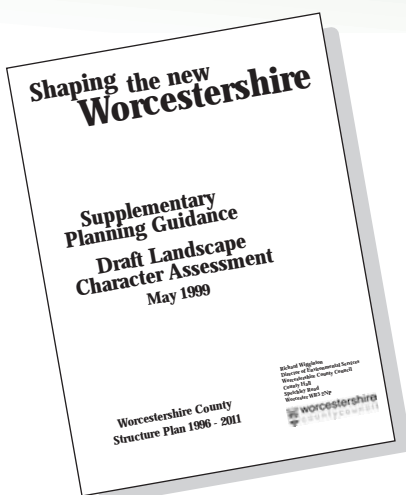
Full-colour, illustrated summary of the Worcestershire Landscape Character Assessment

2004
34 pages

Worcestershire LCA - Process, Products and its Role in the Planning System

Technical document detailing the philosophy and methodology behind landscape character assessment and how it may be practically applied

2008
36 pages



¹ This document has been superseded by the Landscape of Worcestershire website; all the information it contains, including full LDU descriptions, can be accessed via the mapping portal on these pages www.worcestershire.gov.uk/home/wcc-lca-home



WORCESTERSHIRE LANDSCAPE CHARACTER ASSESSMENT

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INTRODUCTION

The landscape is a powerful entity that influences our every day lives and perceptions, contributing to much of our decision making - where we choose to live, work, spend our leisure-time. The landscape correspondingly influences such aspects as tourism, house prices, and employment potential , thereby playing a decisive role in the local and regional economy.

1.1 What is it that we are trying to do?

We have expectations of the landscape: it should certainly please us, in some cases excite and inspire us. Too often the landscape fails us. It can be bland, it can be depressing, it can lack the essential ingredients to raise our spirits and provide a sense of place to which we can relate.

The relationship between the planning process and the opportunities it presents to best serve the landscape, raises several issues:

- i. There is a perception that the landscape is becoming increasingly uniform and the special 'sense of place' is being lost.
- ii. Past approaches to look after the landscape have focused on protecting 'special' landscapes from change, seeking to halt their evolution and retain them as historical set-pieces.
- iii. There is a need to accept change, to be able to accommodate change within the landscape.

iv. There is a need to be able to identify the anticipated damage to the landscape that such changes might precipitate.

v. In order to make decisions about the landscape it is necessary to understand it. Decisions regarding the landscape can often appear to be based on personal perception and lack the justification of a rigorous and accepted methodology.

vi. There is a need for a consistent approach to assessing the landscape, enabling local decision making to be placed in the context of a strategic framework, linking national and regional policy objectives with county/district wide planning and land management activities.

vii. There is confusion, based on scale, between perception of the landscape, and site-based analysis.



1.2 The landscape/planning brief

There are 4 key objectives, therefore, that require addressing, with regard to landscape issues and the planning process:

- i. To introduce a consistent approach to understanding the complexity of the landscape and so be able to make informed judgements about it, avoiding personal preferences. The consistency of such an approach should be reflected at all levels, from national to local in order to ensure compatibility at the broader strategic level, and successful translation to the local scale.
- ii. To enable necessary change to take place whilst, in recognition of the growing concern about the increasing uniformity and blandness of the landscape, retaining the sense of local or regional identity.
- iii. To recognise the relevance of 'appropriateness' - that where choice exists, change may be more appropriate, or less damaging, to the landscape, in one form or location as opposed to another.
- iv. To be able to differentiate between, and be able to respond to, issues that affect landscape character, and those that are site-specific.

The use of landscape character assessment provides a means to achieve these aims.

1.3 Development of Landscape Character Assessment

For many years, the concept of landscape conservation, particularly with regard to its association with development plans, has been largely based upon the notion of defining and protecting landscapes on the basis of their 'quality'. This led to the need to identify those areas or landscapes deemed to be the most attractive, and consequently affording them some form of protection. A hierarchy of landscape designations was developed, the most important being those of national importance, followed by those of regional and then those of local importance.

Of the areas of national importance, those landscapes defined by the Countryside Agency (now Natural England) as Areas of Outstanding Natural Beauty are relevant to Worcestershire, with the Malvern Hills defined as an AONB, together with Bredon Hill and the hills beyond Broadway, which form the western extremity of the extensive Cotswolds AONB. Beneath these came those landscapes of regional importance, defined by the local authority - in Worcestershire these were termed Areas of Great Landscape Value - followed by those of local significance defined in District Local Plans.

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1.3 Development of Landscape Character Assessment (continued)

As a result, the consideration given to landscape, when dealing with planning issues, has largely been related to location - focused on whether a proposal lies within an area of landscape designation or not. Proposals for development or change within a given area of landscape designation would be guided by policies indicating that the character, or special quality, of the area should be protected, although, until recently, it was rare for the character of such areas to be described, leaving it up to the individual to define these parameters. Areas outside such landscape designations invariably lacked such policy guidance. These 'undesigned' areas, often forming the greater part of a county, were invariably the lowland, developed areas, where, it could be argued, the pressures for change are acute and the need for policies to protect the landscape are greatest.

The previous Structure Plan (for Hereford and Worcester 1986-2001) sought to recognise the importance of the wider landscape, by identifying, and seeking to protect, a range of features throughout the county that were considered to be significant to the make up of its character. These features included skylines and hill features, mixed and broadleaved woodlands, dense hedgerow patterns and linear features.

This approach, however, identified such features for their own sake and failed to relate to their spatial distribution, physical nature and association with one another, and so make the link to the cultural evolution of the landscape.

Landscape character assessment makes such a link, placing the features of a particular landscape in context, providing not just a description of the different landscapes within the county, but an understanding as to why those differences and different landscapes are there and what they represent.





WHAT IS LANDSCAPE CHARACTER?

The landscape has evolved over time as a result of two basic influences. The first is the physical structure of the landscape, represented by its geology, topography and soils. These are permanent elements and provide fundamentally stable basic patterns to the landscape. The second influence is the result of man's endeavours to live within the constraints of these different physical conditions, producing a range of cultural patterns that are superimposed upon the basic physiographic patterns.

2.1 Change in the landscape

The cultural patterns result from differences in land use, and have been influenced by:

- i. the degree to which woodland clearance has taken place
- ii. the land use, resulting from such factors as soils, climate and topography
- iii. the settlement and field patterns that have developed as a response to population densities and social organisation, the carrying capacity of the land, and the influences of physical restrictions such as the occurrence of seasonal flooding, or social restrictions such as the presence of forest laws or other aspects of land tenure or ownership

These patterns, based upon physiographic parameters, and the cultural responses to them, define what is called the inherent character of the landscape. The process of landscape character assessment is to identify and

describe the areas of different inherent character within the landscape.

It is often stated that landscapes are constantly changing. The landscape is certainly not static, but the changes most often perceived are those that are site-specific rather than those affecting large areas of comparable landscape character.

Landscape character develops from a series of 'overlays', each overlay reflecting the dominant influences of the period. The degree to which 'change over time' has affected the inherent character of different landscapes varies considerably. In some landscapes, 'recent' changes have completely replaced earlier patterns, in others the influences of much older periods still prevail.

Nevertheless, the basic patterns that we read in the landscape still reflect the response to physiographic constraints, overlain by discernible patterns relating to cultural evolution, indicating that there is in fact a significant underlying constancy to the landscape. The rate of change to landscape character is therefore, generally much more of a slow evolution as opposed to sudden response.

Over the last 50 years, however, change has certainly accelerated, a response to the fact that increased mechanisation and advances in agricultural technology have reduced the former influence of the physical constraints of the land. Similarly, the demand for new housing and development is primarily dictated by urban influences rather than an interdependency on rural land use.

2.1.1 A tendency towards uniformity

The concerns about the increasing uniformity of the landscape are well-founded and it is to be hoped that landscape character assessment will provide a tool to reduce this trend.

Landscape uniformity is the result of three key influences:

- i. reduced dependency upon physical and cultural constraints, which formerly 'shaped' the character of the landscape
- ii. the loss of features that are distinctive to a particular area,
- iii. the dilution and compromise of those features that remain by the addition of the commonplace or the inappropriate.

This latter aspect can be compounded by the introduction of landscaping conditions, associated with planning permission, which are standardised solutions rather than tailored to reflect the character of the particular area. A similar impact results from the advocacy of environmental principles that are 'generally beneficial' rather than 'locally specific' in such fields as forestry and countryside management.

Landscape character assessment provides a clear indication of those features that define the character of a particular area, together with the relative importance of those features. This provides a strong directive towards a vision or focus for the landscape of that area, which in turn, can influence how the tools available in the planning and decision making processes, can be best used to achieve such goals.





2.1.2 Changes to landscape character

Adoption of the concept of landscape character assessment does not equate with halting future landscape change. The underlying doctrine of landscape character assessment is to understand the process of landscape evolution, taking as read that landscapes will continue to evolve, reflecting changing economic, social and environmental forces in the process. Landscape character assessment does not seek to embalm the landscape as a museum piece, set at a particular period of time. Instead it seeks to raise awareness of those aspects of landscape evolution that are pertinent to the identity of particular landscapes today, in other words, they contribute to its inherent character. The challenge lies in finding ways to guide and control change, to be able to best accommodate change, whilst recognising and respecting the inherent character of the landscape

The degree to which landscape character is influenced by change depends upon the magnitude of that change, in other words, the scale at which that change is occurring. To help understand this, it is helpful to bear in mind the difference between landscape character and local distinctiveness. Landscape character is defined by particular combinations of characteristics occurring in repeating patterns over a particular area, as opposed to the presence of individual, often unique, features, which contribute to what we regard as local distinctiveness.

Landscape character defines the broad brush, generic, characteristics of areas that have shared a similar landscape evolution. For the character of a particular Landscape Type to be affected by change, that change should be evident or predictable across the Landscape Type as a whole.

Taking as an example, a Landscape Type with the characteristics of a mixed farming land use and an absence of any woodland cover - should a landowner choose to plant an area of woodland, perhaps for shooting, or for nature conservation reasons, the maturing woodland would change the appearance of that specific locality: it would create a feature out of kilter with the general character of that (unwooded) Landscape Type. Such a change, in terms of landscape character, would not be encouraged, although it is recognised that there may be no control over such individual actions. If, on the other hand, the future of mixed farming generally ceased to be viable economically in that particular Landscape Type, and a change to a land use based on forestry appeared to be the most feasible, such a change, affecting the Landscape Type as a whole, would be recognised, accepted and encouraged as part of the inevitable evolution of that landscape. The presence of woodland cover would then become part of the evolving inherent character of that Landscape Type.

2.2 Condition of the landscape

There is a fundamental difference between a change to the character of a particular landscape (described above) and the deterioration of the character of a particular landscape. The degree to which the inherent landscape character of a given area is expressed today is referred to as the **condition** of that area. This concept is explained more fully in the later section on Analysis and Evaluation. Basically, a landscape is deemed to be in good condition if the attributes that define its inherent character are well represented. A landscape is considered to be in poor condition if those features are absent or poorly represented, in terms of quantity and quality, and/or if uncharacteristic attributes are present.

2.3 Landscapes of the future

It could be said that the erosion of regional and local identity is deemed to be the very process of landscape evolution in the 21st century. Such a process is, however, considered to be undesirable, and the need to retain a sense of local identity to our landscapes and surroundings is, as public opinion and the campaigns of such organisations as Common Ground and the CPRE have indicated, an aspect crucial to the quality of our lives.

Such a philosophy is now encapsulated in Government Guidance through Planning Policy Statement 7 (PPS7) *Sustainable Development in Rural Areas*, available to download from the Communities and Local Government website: www.communities.gov.uk/planningandbuilding/planning/planningpolicyguidance/planningpolicystatements/.



WHAT IS LANDSCAPE CHARACTER ASSESSMENT?

The process of landscape character assessment (LCA) involves the description and classification of areas where distinctive features occur in repeated patterns. It seeks to describe what makes one area different from another, avoiding personal preferences or judgemental values.

3.1 Landscape Character Assessment of Worcestershire

The landscape character assessment of Worcestershire was begun in 1997 by the then Hereford and Worcester County Council, and was implemented through a funding partnership involving the County and District Councils, the Countryside Commission (now Natural England), the Forestry Commission, the Environment Agency, English Heritage and the Council for the Protection of Rural England.

The character assessment takes account of, and integrates with, two national programmes: Countryside Character, undertaken by the Countryside Agency, and the Natural Areas programme, carried out by English Nature (both now Natural England). The Worcestershire assessment also takes account of, and is fully compatible with, the advice relating to landscape character assessment to be found in the Guidance, produced by the Countryside Agency and Scottish Natural Heritage, published in April 2002.

The Worcestershire assessment is closely linked to similar studies carried out in other counties in the Midlands, including Herefordshire, Staffordshire, Shropshire, Warwickshire and Derbyshire, all of which are based on comparable principles and methodology, and serve to provide a useful basis from which to develop an integrated approach to the landscape of the West Midlands.



3.2 Concepts and terminology

The starting point for the landscape character assessment was the need to put local decision making in the context of a strategic, character based framework that was capable of linking national/regional policy objectives with county/district wide planning and land management activities. Central to the development of such a framework is the recognition of two basic concepts that underpin the whole process of landscape character assessment. These are:

- i. That landscape character is not purely a visual phenomenon, but rather an expression of the way in which particular combinations of natural (physical and biological) and cultural factors have interacted over time to make one place different from another. Character assessment thus focuses on the nature of the land, rather than the response of the viewer, in order to convey an informed picture of the landscape without reflecting personal preference, or making subjective value judgements.
- ii. That the concept of landscape character is only meaningful at a scale of magnitude that is smaller than the global environment, but larger than the individual site. Character assessment is thus primarily a strategic decision support tool rather than a site-based evaluation technique. There are already a number of established approaches for assessing the individual elements or features within a site, ranging from habitat/vegetation survey to the landscape and visual impact guidance advocated by the Landscape Institute and the Institute of Environmental Assessment.

3.3 The process and products of LCA

Landscape character assessment usually consist of two phases:

- i. classification and description,
- ii. analysis and evaluation

The **classification and description** stage of the Worcestershire landscape character assessment process has resulted in:

- i. The identification of landscape units: **Regional Character Areas (RCAs), Landscape Description Units (LDUs) and Land Cover Parcels (LCPs)**
- ii. The identification of the **Landscape Types** to which the LDUs and LCPs belong
- iii. The mapping (spatial distribution) of Landscape Types, RCAs, LDUs and LCPs within the county
- iv. Detailed description of the Landscape Types, RCAs, LDUs and LCPs

The **analysis and evaluation** phase builds on the classification and description phase by using the detailed database it produces, analysis of which enables a strategic framework for landscape policies and priorities for action to be developed. This stage is described in greater detail in Chapter 6. The process of LCA: II, analysis and evaluation.

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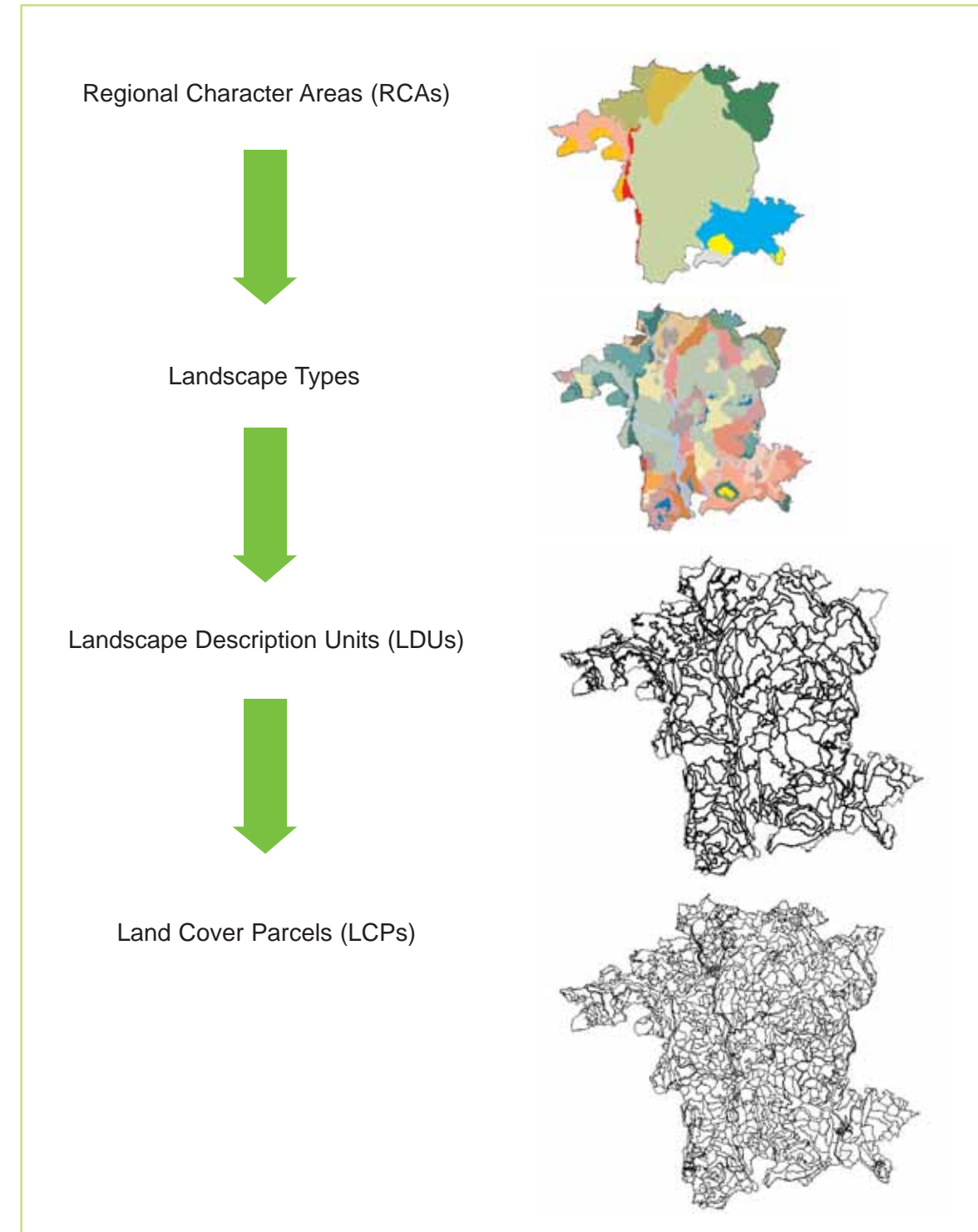


3.3 The process and products of LCA (continued)

Landscape Types are the result of the aggregation of the much smaller units that are defined during the process of character assessment. These smaller units - Land Cover Parcels being the smallest, and Landscape Description Units the larger units within which they nest - provide the finer level of detail that is required for some of the later analysis and evaluation.

Similarly, Landscape Types can be assembled into broader groupings. These are called Regional Character Areas (aka Joint Character Areas) and generally equate with those identified in the national programme of Countryside Character undertaken by the Countryside Agency. The greater degree of detail that can be gained from a county as opposed to a national character assessment enables the boundaries of these areas to be defined more accurately, and, where appropriate, to further subdivide them. Regional Character Areas define areas of physiographic and cultural identity at a very broad brush level of detail, invariably transcending the administrative boundaries of local authorities and so creating a regional and national framework within which the finer scale of evaluation at county level can take place. Regional Character Areas in this study are used primarily to provide a simple geographical framework within which to present the range and distribution of Landscape Types in a comprehensive manner.

Figure 1 Hierarchy of Landscape Units





THE PROCESS OF LCA: I, CLASSIFICATION AND DESCRIPTION

The practical process of landscape character assessment involves a combination of desk study and field survey, backed up by consultation with specialists in such fields of study as ecology, historical geography and earth sciences. The primary function of the desk study is to systematically divide the countryside into discrete and relatively homogenous units of land, within which the constituent physical and cultural elements occur in repeating patterns and share certain visual characteristics.

4.1 Identifying LDUs

The primary division of land results in the definition of **Landscape Description Units (LDUs)**. These are the building blocks of the landscape and are derived through a process of map analysis that involves drawing out the relationship between the following six definitive indicators (so called because they define the boundaries of the LDUs).

Three of the definitive indicators relate to the **physiography** of the landscape:

- Topography
- Geology
- Soil type

The other three definitive indicators relate to the **cultural pattern** of the landscape:

- Land Use
- Tree Cover Character
- Settlement Pattern

Following analysis of appropriate maps (for example, the analysis of historical maps played an important role in analysing the patterns of settlement, tree cover and land use) a simple broad brush indication of the range of ways in which each indicator could be expressed in the Worcestershire landscape could be identified.

Simplified map overlays were prepared for each indicator, which, when related to one another, enabled broad patterns to be distinguished. These, in turn, made it possible to begin to understand the relationship between the different indicators listed above. This greatly assists in the understanding of how a particular landscape has developed and is the key to assessing landscape character.

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4.1 Identifying LDUs (continued)

For example, Settlement Pattern could be represented within the range of:

- *Nucleated* - discrete, usually large villages with a low level of dispersal. There is little settlement beyond the village boundary and the farmsteads are contained within the fabric of the village. Buildings beyond the village boundary are usually restricted to 'new' farmsteads created at the time that the former open fields were enclosed.
- *Clustered* - discrete settlement nuclei (small villages and/or hamlets) associated with a moderate to high level of dispersal.. Dwellings are centred around an inner core, often the church, but farmsteads are situated outside the village in open countryside.
- *Wayside* - small clusters /strings of wayside dwellings associated with a moderate/high level of dispersal.
- *Dispersed* - scattered farmsteads and rural dwellings associated with a low to moderate density of dispersal.
- *Scattered* - a very low dispersal of individual farmsteads and rural dwellings.
- *Unsettled* - landscapes lacking human habitation

4.2 Identifying LCPs

LDUs are defined by simplified patterns of the six attributes and it was recognised that some degree of variation within LDUs would be inevitable. In the case of such areas of variation, sub-divisions within an LDU were created and are referred to as **Land Cover Parcels**. Such variations might, for example, be due to a variation in land use, field size or field pattern within an LDU. Similarly, areas of distinctiveness such as historic parkland or small areas of unenclosed common land, which were regarded as being of too small a scale to classify as a Landscape Type in their own right, were defined as sub-divisions within an LDU. It is these smaller, Land Cover Parcels, that defined the units for the second stage, the **field survey**.

The field survey provides additional detail, that cannot be derived from mapped sources. Such details include those of hedgerow species composition, woodland structure and the presence of trees along hedgerows or watercourses, and also enables the degree of visual unity to be assessed. If two adjacent survey units possessed no visual differences on the ground, they would be merged together to form one unit.

The field survey also provides an opportunity to gather information about the condition of the landscape, for example - whether hedgerows are well-maintained, overgrown or deteriorating and gappy, or whether hedgerow tree populations exhibit a healthy variation in age structure or primarily consist of over-mature specimens.

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4.2 Identifying LCPs (continued)

Information from the field survey, together with additional information from the desk study, provided a further range of data sets to assist in the identification of the areas of differing landscape character that were gradually emerging. These data sets are termed descriptive indicators - they provide additional descriptive information about the landscape, especially what it looks like on the ground.

The following six descriptive indicators were added to the original six definitive indicators:

- Spatial character
- Indicative ground vegetation
- Field boundaries
- Enclosure pattern
- Tree cover pattern
- Additional characteristic features

The descriptive indicators were used to refine the LCP boundaries and ensure that the attributes of each LCP were uniform

The information derived from both the field survey and the desk study is held in a database at Land Cover Parcel scale. Land Cover Parcels (LCPs) therefore contain the finest degree of detail from the assessment and they represent the most homogenous areas of landscape. Such information may include details that are specific to that area only and do not have any common linkage with other LCPs or to LDUs.

INDICATORS

Definitive Indicators

- Topography
- Geology
- Soils
- Land Use (farm type)
- Settlement Pattern
- Tree Cover Character

Descriptive Indicators

- Field Boundaries
- Enclosure Pattern
- Tree Cover Pattern
- Spatial Character
- Indicative Ground Vegetation
- Additional Characteristic Features

4.3 Landscape Types

LDUs and the LCPs they contain are site-specific, relating to a particular locality and can be referenced by nomenclature associated with their location (e.g. LDU MH 07 Ankerdine Principal Wooded Hills) Commonalities between LDUs enables them to be grouped together into Landscape Types. A Landscape Type is non area-specific and can occur in different parts of a county and in different counties within the country. Using a common nomenclature for Landscape Types, together with a common methodology for their definition, a compatible landscape character analysis at regional and national levels can be achieved.



Wet Pasture Meadows

22 Landscape Types have been identified in Worcestershire:

- High Hills and Slopes
- Principal Wooded Hills
- Wooded Hills and Farmlands
- Wooded Forest
- Forest Smallholdings and Dwellings
- Timbered Pastures
- Principal Timbered Farmlands
- Timbered Plateau Farmlands
- Wooded Estatelands
- Limestone Estatelands
- Sandstone Estatelands
- Enclosed Commons
- Estate Farmlands
- Principal Settled Farmlands
- Settled Farmlands with Pastoral Land Use
- Settled Farmlands on River Terraces
- Principal Village Farmlands
- Village Farmlands with Orchards
- Village Claylands
- Riverside Meadows
- Wet Pasture Meadows
- Unenclosed Commons

It should be noted than an assessment of urban landscape character has yet to be undertaken and for the moment all urban landscapes are grouped together.



4.4 Regional Character Areas

LDUs may also be grouped together in areas that reflect a perceived common cultural unity. Such groupings are referred to as Regional Character Areas.

The Vale of Evesham is an example of a Regional Character Area (RCA). The public relate to this generic area and have certain perceptions about its landscape, particularly pertaining to its cultural attributes, notably its land use, and, to a lesser extent, to its topography. The Vale of Evesham actually comprises a range of Landscape Types:

- Principal Village Farmlands, representing the core areas of horticulture and cropping.
- Village Farmlands with Orchards, representing those areas where orchards and soft fruit growing are dominant.
- Riverside Meadows, flanking the River Avon.
- Village Claylands, representing the areas of heavier clay soils where arable land uses are less dominant.

In Worcestershire the Principal Village Farmlands Landscape Type, and Village Farmlands with Orchards Landscape Type are restricted to the Vale of Evesham RCA.

The Village Claylands Landscape Type occurs in Worcestershire within two Regional Character Areas, the Vale of Gloucester (which extends into Gloucestershire) and the Vale of Evesham (which extends into Warwickshire).

Within the Vale of Evesham RCA, the Village Claylands are represented by five LDUs, each named in relation to its location e.g. the Norton Hall Village Claylands and the Saintbury Grounds Village Claylands.



Village Claylands

LCA AS A PLANNING TOOL

As alluded to in section 2.3 above, Government guidance now advocates the use of landscape character assessment in land use planning. The following extracts from Planning Policy Statement 7 encapsulate the motivation to steer the evaluation of landscape character assessment nationally in the direction that has already been taken by Worcestershire County Council:

Government's Objectives

(i) *To raise the quality of life and the environment in rural areas through the promotion of:*
 - *good quality, sustainable development that respects and, where possible, enhances local distinctiveness and the intrinsic qualities of the countryside.* (p. 6)

Key Principles

(vi) *All development in rural areas should be well designed and inclusive, in keeping and scale with its location, and sensitive to the character of the countryside and local distinctiveness.* (p. 8)

Sustainable Rural Communities, Economic Development and Services Design and the character of rural settlements

13. Local planning authorities should prepare policies and guidance that encourage good quality design throughout their rural areas, in accordance with Annex C to PPS1, and utilising tools such as Landscape Character Assessments. (p. 11)

from Planning Policy Statement 7: Sustainable Development in Rural Areas ODPM (2004)

www.communities.gov.uk/planningandbuilding/planning/planningpolicyguidance/planningpolicystatements/

This national guidance has seen the introduction of policies relating to landscape character in planning documents such as Structure Plans, Local Plans, Regional Spatial Strategies and Minerals and Waste Plans.

Policy QE6 in the West Midlands Regional Spatial Strategy 2004, which relates to the conservation, enhancement and restoration of the Region's landscape, states that: 'Local authorities and other agencies, in their plans, policies and proposals should conserve, enhance and where necessary, restore the quality, diversity and distinctiveness of landscape character throughout the Region's urban and rural areas' and identifies a series of approaches to achieve this, including:

- ensuring that a consistent approach is taken to landscape character issues, particularly where they cross local planning authority boundaries;
- protecting and, where possible, enhancing natural, man-made and historic features that contribute to the character of the landscape and townscape, and local distinctiveness.
- Making clear that the objective of such policies is to raise awareness of landscape character, to clearly state the commitment to adhere to landscape character principles and to integrate these into the planning and decision making processes. There is also a need to emphasise how landscape character may be integrated with other planning considerations including sustainability, economic regeneration, tourism, recreation, housing and infrastructure.



5.1 The uses of LCA in planning

Landscape character assessment can be applied in numerous situations in development control and strategic planning, contributing to these aspects of the planning system in the following ways:

- i. assessing whether potential development or change is appropriate to a particular landscape, or indicating which landscapes would be appropriate for a particular development or change to be directed to.
- ii. guiding landscaping conditions associated with planning permissions, in order to achieve landscape character gain (enrichment), and to ensure compatibility with landscape character.
- iii. identifying those attributes of landscape character about which we should be most concerned. In other words, in each Landscape Type, would the loss of certain attributes be more damaging to landscape character than others?
- iv. assessing whether some landscapes have a greater capacity to accept change than others. In other words, should we be more concerned about proposals for change in some landscapes than in others.
- v. anticipating likely changes in landscape character, and taking a proactive approach to the strategic development of such areas, in order to guide change for multi-purpose benefit.

In order to use the assessment as a decision making tool, the **classification and descriptions** alone still place a great onus on individual interpretation. The descriptions of Landscape Types, and the smaller landscape units are considered sufficient to enable points i and ii above to be achieved. But in order to meet the criteria for points iii-v, an **analysis and evaluation** of the results of the classification and description must be performed. This is elaborated in section 6 below.

5.2 The concept of appropriateness - working with the landscape

The identification of the features that define the character of particular landscapes provides an indication as to the appropriateness of particular proposals for given areas. It helps define where 'things would best fit in'. For example, should a new village be proposed, parts of the county can be readily identified where the inherent settlement pattern is one of well-defined nucleated villages and so, from the aspect of landscape character, a new village could be appropriately accommodated in such landscapes, as opposed to those landscapes where the settlement pattern is that of a more dispersed nature, and concentrated nuclei are lacking.

The appropriateness of landscaping conditions can similarly be gauged. For example, belts of woodland planting can be successfully introduced in association with new development in those landscapes where woodland is characteristic, but will do little to enhance the integrity of those where the absence of woodland is a defining factor.

The aspect of appropriateness is also very pertinent in assisting the spatial prioritisation of initiatives associated with countryside management or forestry. For example, areas that would readily lend themselves to wetland creation, or as a focus for new mixed broadleaved woodland planting, can easily be determined from the Landscape Type descriptions.

The work which is later described, relating to the assessment of landscape condition, will provide even greater clarity as to where such prioritisation would be most beneficial, indicating those areas where the restoration of certain aspects of the landscape character of a particular area are most required.

It is implicitly understood that certain forms of change or development will not be appropriate to any landscape. In addition, other factors, such as economic considerations, may well guide development or change away from landscapes where such proposals would have been appropriate, to those where it is not. The challenge lies in identifying a means to safeguard landscape character whilst enabling unavoidable (non appropriate) development or other forms of change to take place.



5.3 The concept of sensitivity - safeguarding the landscape

The process of landscape character assessment avoids making preferential judgements or making any suggestion that one landscape is better than another: the assessment simply indicates landscapes that are different from one another and, through description, explains why. Having said that, it would appear that landscapes differ not only in terms of their evolution, but also in terms of what could be described as the robustness of the various attributes that define their character. In other words certain landscapes may be deemed to be more sensitive than others.

Landscape sensitivity in this sense relates to the stability of character, the degree to which that character is robust enough to continue and to be able to recuperate from loss or damage. A landscape with a character of high sensitivity is one that, once lost, would be difficult to restore, a character that, if valued, must be afforded particular care and consideration in order for it to survive.

Landscape sensitivity is determined in the analysis and evaluation phase of LCA. In order to achieve the points iii-v listed in section 5.1 above - which relate to making judgements about landscapes, the attributes they contain and whether some are better able to accommodate change than others - it is necessary to explore this concept of sensitivity, and to provide a reasoned justification for any decisions based on it.

The process of defining landscape sensitivity is described in Section 6.

THE PROCESS OF LCA: II, ANALYSIS AND EVALUATION

A greater understanding of what could perhaps be called 'landscape dynamics' - an analysis of the status and relative merits of the various attributes of the indicators that make up the character of different Landscape Types - is necessary in order that a clear and consistent approach to assimilating landscape character into the decision-making process can be achieved. Just as a framework for the classification and description phase of LCA has been developed, so a robust and reproducible system for the analysis and evaluation of landscape character must be devised.

6.1 Indicators for analysis

Of the six definitive indicators of landscape character, the three relating to physiography (soils, topography and geology) are considered to be stable, permanent components. They are less likely to be significantly affected as a result of proposals for development or other forms of change. By way of contrast, the nature of the three cultural indicators could alter due to damage, loss, or by dilution as a result of the introduction of inappropriate replacement or additional characteristics. Changes to some of the descriptive indicators are similarly possible. The process of analysis therefore concentrates on the following cultural and descriptive indicators:

- Land Use
- Tree Cover Character
- Tree Cover Pattern
- Enclosure Pattern
- Boundary Type
- Settlement Pattern

Note: The descriptive indicator of spatial character was excluded from the analysis as the various components that together contribute to spatial character - tree cover, enclosure etc. were already being assessed individually. The descriptive indicators of 'Indicative Vegetation' and 'Additional Characteristic Features' were also excluded from the analysis as the presence or absence of these tended to be of a more inconsistent nature and therefore not necessarily a pertinent contribution to the assessment of resilience or condition.

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6.1 Indicators for analysis (continued)

Table 1 Indicators for analysis for each attribute assessed

Attributes		
Land Use	Settlement Pattern	Tree Cover Pattern
Rough grazing	Unsettled	Continuous
Mixed farming	Scattered	Linked
Pastoral	Dispersed	Discrete
Cropping	Nucleated	Groups
Fruit	Clustered	Scattered
Woodland	Wayside	Linear
Enclosure Pattern	Tree Cover Character	Boundary Type
Unenclosed	Unwooded	Hedges
Organic	Ancient	Hedge/ditch
Variable	Planned	Walls
Sub-regular	Trees	
Planned		

6.2 Assumptions and definitions for analysis

The model for landscape character analysis presented here is based on the following assumptions:

- i. Within each Landscape Type certain attributes may play a more **significant** role than others in defining the character of that landscape.
- ii. Within each Landscape Type, **trends** may be apparent - certain attributes may be declining, others may be considered to be stable or improving.
- iii. Within each Landscape Type, certain attributes may be more **vulnerable** to change than others.

- iv. Within each Landscape Type, the degree to which different attributes are **replaceable** may vary - both in terms of timescales for the replacement to be considered achieved and in terms of the replacements being sufficiently comparable to the original
- v. The **condition** of the landscape - the degree to which the described character of a particular Landscape Type is actually evident today -will vary within a given area of that Landscape Type.

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6.2 Assumptions and definitions for analysis (continued)

Landscape character evaluation and analysis is therefore concerned with calculating/identifying:

- Significance
- Trend
- Vulnerability
- Replaceability
- Condition

By being able to appreciate and assess the **significance, trend, vulnerability** and **replaceability** of different attributes, the relative **resilience** of the various attributes within given Landscape Types can be assessed. Resilience is described as a measure of the endurance of landscape character, defined by the likelihood of change in relation to the degree to which the landscape is able to tolerate that change. The resilience assessment is a generic assessment for a given landscape type.

Finally, by combining the resilience of attributes with a measure of their condition, the **sensitivity** of a given area of landscape may be determined. The measurement of condition can be most meaningfully undertaken at LDU or LCP level, or divisions of these units.

The analysis of sensitivity will help identify and prioritise the attributes which should be safeguarded in a given landscape. The analysis of condition will also identify the aspects of **landscape gain** which would be most appropriate and beneficial to the landscape in question. **Should:**

- i. the measures for the effective safeguarding of sensitive attributes, and
- ii. the opportunities for significant and appropriate landscape gain

appear incompatible with a proposed development/change, the proposal, from the landscape character point of view, should be discouraged.

It should be stressed that landscape character assessment does not replace the need for detailed site evaluation and visual assessment for specific proposals. The landscape character assessment does however present a context in which the specific site evaluation can be placed.



6.3 Assessing the *significance* of landscape attributes

The significance of an attribute can be defined as the relative contribution made by that attribute to the character of a particular landscape. The measure of significance is dependent upon the **consistency** of the attribute - the degree to which it is recognisable and consistently represented - together with the **visual prominence** of that attribute.

When considering the aspect of **visual prominence** of landscape attributes, the visual dimension of the landscape is brought into sharper focus:

- Prominent attributes are those that make a great immediate visual impact.
- Apparent attributes are those for which one is aware of their presence but their impact is not overwhelming.
- Insignificant attributes are those which may make only an insignificant visual impact; their presence may only be remembered in retrospect.

When considering the aspect of **consistency**, one recognises the fact that the grouping together of Land Cover Parcels and Landscape Description Units, in order to create Landscape Types, will invariably involve a degree of 'best fit' - not all attributes will be expressed in exactly the same way in every LCP or LDU that is grouped within a Landscape Type as part of the assessment process.

Consistency and visual prominence are closely inter-related in that the very variation within the expression of an attribute may well dilute its visual impact. For example, the land use of the Settled Farmlands on River Terraces Landscape Type is consistent - the soils are of a very high quality throughout the area, resulting in the dominant cropping/arable land use. Because the land use is so distinctive, and because it occurs with such consistency throughout the area, it makes a big impact, resulting in it being classed as visually prominent. By way of contrast, the land use of the Timbered Farmlands is mixed and tends to be variable - some areas being dominated more by pasture, others having a greater proportion of arable, reflecting local differences in soils, drainage etc. The land use is therefore less consistent, less easily recognised in the field and thus makes only an **apparent** visual impact.

Following this analysis, attributes can be defined as either being of primary, secondary or tertiary significance.

- Attributes of **tertiary significance** are those which are either variable and visually insignificant, variable and visually apparent, or consistent and visually insignificant.
- Attributes of **secondary significance** are either consistent and visually apparent, or variable and visually prominent.
- Attributes of **primary significance** are visually prominent and consistently represented.

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6.3 Assessing the *significance* of landscape attributes (continued)

In summary, significance can be assessed by the following matrix:

		Visual prominence		
		Prominent	Apparent	Insignificant
Consistency	Consistent	Primary	Secondary	Tertiary
	Variable	Primary	Secondary	Tertiary

Significance analysis was undertaken for each landscape attribute - tree cover pattern, tree cover character, enclosure pattern, boundary type, land use and settlement pattern - of each Landscape Type.

The primary and secondary attributes are indicated in the descriptions of each Landscape Type contained in 'A New Look at the Landscapes of Worcestershire' and in the descriptions of Landscape Types on the web site.

The comparative significance of attributes immediately indicates those that are crucial to the character of a particular Landscape Type.

6.4 Assessing the *trend* of landscape attributes

It is possible to indicate the stability of attributes by identifying the current trend. Three very simple categories of trend were defined - improving, stable or declining, using informed judgement based on current and past landscape change.

Trend analysis was carried out for each landscape attribute - tree cover pattern, tree cover character, enclosure pattern, boundary type, land use and settlement pattern - of each Landscape Type.



6.5 Assessing the vulnerability of landscape attributes

Having defined the significance of attributes, consideration is given to the premise that the degree to which attributes may be 'relied upon' to continue to contribute to landscape character may vary. In other words, looking to the future, is the character of one Landscape Type more assured to continue, than that of another? If we value the variety of landscapes today, are there landscapes, or specific attributes of landscapes, that require particular attention in order to ensure their perpetuation?

Excluding external factors, such as economic incentives, that might initiate landscape change, landscape continuity is dependent upon whether the various 'parts' of the landscape are still functioning, and whether they can 'bounce back' should they be damaged.

If an attribute still has a role to play it is likely to remain. In other words, if it is still functioning, it is less vulnerable to change than an attribute that no longer has a function.

The assessment of vulnerability involves the consideration of each attribute in respect of its current function. The expression of function can be represented in one of three categories:

i. The attribute is still functional in the landscape today, in the form that is characteristic of the particular Landscape Type.

ii. The attribute is functional in today's landscape either in a modified form, or with specific support.

iii. The attribute has little, or no function in today's landscape and is considered cosmetic. The former reasons for its presence are no longer applicable and the attribute is a relic of the past. Such attributes are very often valued and preserved for non-practical aesthetic or historical reasons.

Taking tree cover character as an example, the most economical expression of woodland in the landscape today is that of plantations of trees planted in regular shaped blocks, with even-aged composition and a relatively low species composition. Woodlands of this type are characteristic of a number of planned landscapes in Worcestershire and are therefore considered to be functional in this form in those landscapes. By way of contrast, the character of woodlands in ancient wooded landscapes - with irregular/organic outline, mixed species composition and mixed age structure - would not be considered functional, and some modification of such characteristics, or an augmented financial incentive might be necessary to encourage new woodland planting of this type into these areas. Hedgerow trees, notably of oak, represent the tree cover character of certain other ancient landscapes; such trees have little or no economic function in today's landscapes and are therefore categorised as cosmetic attributes.

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They may, however, be of primary significance and a key component of the character of these landscapes. Where this is the case, a means to secure their perpetuation through new planting, together with the safeguarding of existing tree stock, must therefore be a priority.

6.6 Assessing the tolerance of landscape attributes

Tolerance can be defined as the degree to which attributes can be replaced in the landscape should they be damaged or destroyed- a measure of the ability to 'bounce back'. If it is difficult to replace or repair an attribute relatively quickly, should it be lost or damaged, the impact upon landscape character will be much greater than for an attribute that can be replaced readily. Landscapes that are composed of attributes that can be readily replaced will have greater tolerance to change than those that take a long time to repair.

The assessment of tolerance takes into account the time taken for an attribute to be replaced together with the degree to which a comparable replacement (in terms of like for like) can be achieved.

The categories for tolerance are:

i. Potential of attribute to contribute to landscape character in the short term (up to 15 years), with fully or partially comparable replacement

The analysis of vulnerability was undertaken for the following attributes of each Landscape Type - tree cover pattern, tree cover character, enclosure pattern, boundary type and land use but not settlement pattern, for which the above process was considered unsuitable and a modified approach taken. This is explained in Section 6.6.1

ii. Potential of attribute to contribute to landscape character in the medium term (15-50 years) with fully or partially comparable replacement

iii. Contribution of attribute to landscape character only in the long term (over 50 years), if at all and/or a comparable replacement is unlikely.

The concept of replaceability as used in this (landscape character) context requires particular explanation.

It is vital to stress that this assessment does not imply that **everything can** be replaced. It is fully recognised and appreciated that for ecological or historical reasons, certain attributes are deemed to be irreplaceable.

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6.6 Assessing the *tolerance of landscape attributes* (continued)

In order to prevent irreparable damage to landscapes, the potential for restoration must be identified, and if landscapes are to be restored, the replaceability of lost attributes requires consideration, even if the replacement attributes may fail to fully replicate the original in terms of their historical or ecological 'pedigree'.

In order to explain this more fully, taking woodland as an example:

An area of ancient semi-natural woodland would be regarded as irreplaceable from the ecological point of view, due, in part, to the ground flora and invertebrate populations, all of which have evolved over hundreds of years under conditions of comparative stability. An area of mixed native woodland on a new site simply would not have the potential to begin to support such complex and interdependent biodiversity.

On the other hand, it is considered desirable to be able to encourage the restoration of attributes that are appropriate to the landscape character of a given area. Without this mechanism, landscapes would simply continue to deteriorate. In order to be able to do this, it is necessary to be able to identify the parameters to guide appropriate restoration.

In terms of woodland in ancient landscapes, from the landscape character point of view, such parameters would be:

- shape of the woodland (organic/irregular)

- composition of the woodland (mixed native broadleaved trees and shrubs, favouring the locally dominant species, together with a mixed age structure)

- pattern of the woodland (discrete blocks/ interlinking)

In considering the timescale for replaceability, in landscape character terms:

- A new woodland in a planned landscape, where the attributes are a regular outline, low species diversity and even age composition, could make an impact in the medium term and would eventually display all the character of a planned (as opposed to ancient) woodland and so provides a comparable replacement.

- A new woodland in an ancient landscape would only contribute to landscape character in the long term, as it would take far longer for the characteristics of mixed age structure and mixed species composition to become manifest. Even then it could never be classed as 'true' ancient woodland and therefore fails to provide a fully comparable replacement.

The analysis of tolerance was undertaken for the following attributes of each Landscape Type - tree cover pattern, tree cover character, enclosure pattern, boundary type and land use but not settlement pattern, for which the above process was considered unsuitable and a modified approach taken. This is explained in section 6.6.1.

6.6.1 Assessing vulnerability and tolerance of settlement pattern

Settlement pattern was the only pertinent indicator that did not fit comfortably within the framework described above. The measurement of significance and trend remains the same but it is not feasible to entertain the notion of function and replaceability with regard to settlement.

A different set of criteria was necessary to measure the 'stability' of this indicator.

The two aspects selected were:

- A measure of the degree to which current planning guidance encourages compatibility with inherent settlement patterns (classed as vulnerability)
- An assessment of tolerance was made by measuring the degree to which public preference would be compatible with inherent settlement patterns. In other words, without planning controls, to what degree would new settlement respect existing patterns.

6.6.1.1 Vulnerability of settlement pattern

Current guidelines tend to favour directing new residential development into existing villages and clusters or allowing individual development associated with agriculture in the countryside. Thus the vulnerability of:

- **Dispersed** and **Scattered** settlement patterns are regarded as high, since the encouragement of clustering would deviate from their inherent character
- **Wayside** settlement pattern is regarded as moderate, since it could accommodate limited new development as small clusters are characteristic
- **Nucleated** settlement pattern is regarded as moderate, since new development directed into existing village nuclei would perpetuate the inherent character but the development of individual agricultural enterprises away from the nuclei would disrupt the inherent settlement pattern.
- **Clustered** settlement pattern is considered to be low as it is consistent with the current guidelines.

- **Unsettled** landscapes would have a low vulnerability as current planning policy invariably does not allow new settlement into these landscapes. New settlement would not, for example, be allowed to take place in the flood plain, which correlates strongly with the areas defined as Riverside Meadows. In addition, the unsettled characteristic often reflects inhospitable terrain or remoteness, rendering the likelihood of new settlement in such areas unlikely, and so correlating with low vulnerability.

The degree of vulnerability of settlement patterns in Worcestershire was recorded as:

- High Vulnerability - Scattered and Dispersed settlement patterns
- Moderate Vulnerability - Wayside and Nucleated settlement patterns
- Low Vulnerability - Clustered settlement patterns and Unsettled landscapes



6.6.1.2 Replaceability and tolerance of settlement pattern

The replaceability, or possibility of re-creating inherent settlement patterns was not considered feasible, even assuming no planning controls. Instead, this aspect was addressed by considering the sensitivity of the settlement pattern to uncontrolled development. In an uncontrolled situation, it is surmised that development would tend to progress in accordance with the wayside settlement pattern, as demonstrated in other, less regulated, parts of the world. An unsettled landscape would therefore be most

radically affected, whereas the wayside settlement pattern would be least likely to change.

The categories for settlement patterns in Worcestershire are grouped as follows:

- High sensitivity - Unsettled landscapes
- Moderate sensitivity - Nucleated, Scattered and Dispersed settlement patterns
- Low sensitivity - Wayside settlement patterns

6.7 Assessing landscape resilience

Resilience can be defined as a measure of the endurance of the character of a landscape, defined by:

- i. The likelihood of loss of character - the measure of the **vulnerability** of its attributes
- ii. The degree to which the character of a landscape is able to recuperate from such loss - the measure of the **tolerance** of its attributes

- iii. The **significance** of the attributes
- iv. The current **trend**.

The integration of these measures, particularly of vulnerability and tolerance, provides a useful overview of the potential of a landscape to withstand erosion of its character in the future.

The following matrix indicates the relationship of vulnerability and tolerance to resilience:

		Vulnerability		
		High	Moderate	Low
Tolerance	Low	Least resilient		
	Moderate			
	Moderate			Most resilient

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From this it can be seen that the landscapes that should concern us most, and therefore those for which safeguarding should be a priority, are those that are least resilient to change. This relationship is tempered by the relationship between significance and trend and we should be particularly concerned about those landscapes

where attributes that are of high significance are declining.

Landscapes that are least resilient to change therefore are those where the most significant attributes are highly vulnerable, have a low tolerance, and are declining.

6.7.1 Reflections on the application of resilience analysis

This analysis, resulting in the identification of the most and least resilient landscapes, does not necessarily restrict concern to blanket protection of those landscapes - as did the former designations. It is worth noting however, that should the route of protecting landscapes through designation be favoured, such an analysis could be used to justify the selection of areas to be protected by such designation.

Similarly, even landscapes that are highly resilient still have their weaknesses, in the sense that individual attributes may be of low resilience (i.e. of high significance, high vulnerability, low tolerance, or in decline). High overall resilience should not be viewed as an indication to ignore the landscape: development, or other change in these landscapes should still take note of the attributes that define them, to respect and reflect them, and particularly to safeguard those attributes that are of low resilience within them.

What is really intended by this process is the recognition that landscape character analysis enables the attributes that determine the low resilience of a particular landscape to be identified. It may well be possible therefore, even in landscapes of least resilience, to enable some change or development to take place providing the low overall resilience of that landscape is recognised and respected, and that the attributes that determine its low resilience are safeguarded.

For the first time, this approach presents a breakdown of the character of all landscapes. It does not dictate a given conclusion, but simply provides a structure to enable a planning officer, or other user, to make an informed decision. The process is flexible in that it can accommodate changing perceptions of the landscape. For example, should it be felt that a previously functional attribute has ceased to be so, and may even now veer towards the cosmetic, the vulnerability analysis can be readily revised to accommodate such a changing status.

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6.7.1 Reflections on the application of resilience analysis (continued)

Resilience analysis (which takes account of significance, trend, vulnerability and tolerance) has been applied at the Landscape Type level. Landscape Type is therefore assessed by analysis of its constituent elements. Such a process also enables comparisons between different Landscape Types to be made. Figure 2 (on the following page)

illustrates the range of resilience between different Landscape Types, but also indicates the differing resilience of attributes within a given Landscape Type, and also comparison of the resilience of a particular attribute across the range of Landscape Types.

6.7.2 Other applications of resilience analysis

The above analysis provides a very useful tool for strategic work and, particularly, for countryside management, indicating clearly the 'weak' spots within certain landscapes towards which attention should be focused, together with identifying those entire landscapes that appear to be most at risk from dilution or loss of their inherent character. From the point of view of countryside management, the prioritisation of resources and targeting of initiatives can be usefully guided towards such landscapes and towards particular attributes within those landscapes.

From the aspect of strategic planning, such analysis enables an overview of the 'robustness' of the landscape to be gauged. The analysis identifies those landscapes where proposals for change are most likely to coincide with the potential for the greatest detrimental impact upon the character of those landscapes. Landscape character assessment therefore provides a sound basis for the preparation of strategic guidance for the future of the landscape of Worcestershire, defining a clear vision for each Landscape Type, together with clear priorities, objectives and actions. The assessment can have a positive role in guiding landscape change, for example, influencing the form and location of proposals for new settlement, and informing the landscaping conditions associated with such proposals, or informing decision making with regard to the routes of new highway schemes.

6.8 Assessing landscape condition - from the generic to the specific

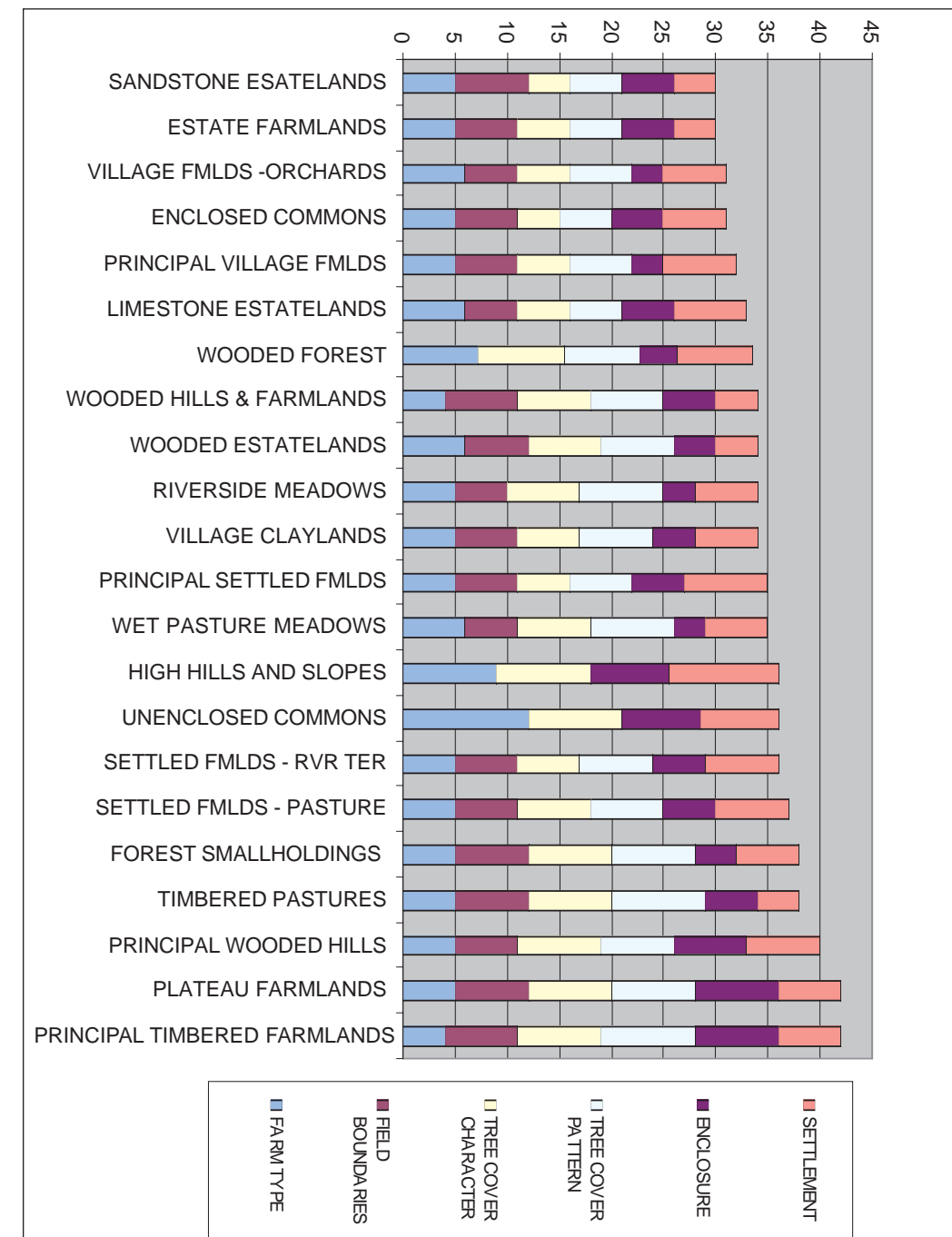


Figure 2 Overall resilience of each Landscape Type. The chart also illustrates how the resilience scores of each individual attribute contribute to the overall score

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6.8 Assessing landscape condition - from the generic to the specific (continued)

The analysis described so far has been based on a generic view of Landscape Types. The Landscape Types have been defined and the analysis relates to the attributes upon which the definitions are based. The resilience analysis has been based on the assumption that the attributes analysed for vulnerability, tolerance etc., are all actually present 'on the ground' today. Whilst commonly shared characteristics justify the grouping of areas of landscape together into Landscape Types, in reality, areas of landscape within a Landscape Type may differ considerably on the ground due to their condition. As described earlier, condition can be defined as the degree to which the inherent landscape character is represented today on the ground.

The assessment of condition involves two fundamental components:

- i. **Representation** - which considers how well the landscape attributes are represented today and if there has been any loss or deterioration
- ii. **Modification** - which considers how the landscape may have been modified e.g. with incongruous, uncharacteristic additions

Regarding **representation**, imagine two areas of Principal Timbered Farmlands Landscape Type. The first contains good populations of hedgerow trees, particularly oaks, together with numerous small copses, and occasionally larger areas, of mixed broadleaved woodland. Mixed farming is predominant, with medium, often small, fields enclosed by hedgerows, frequently of a meandering, irregular pattern. Such a landscape would be described as

being in good condition - the key characteristics that define that Landscape Type are all present and well represented.

The second example has very little hedgerow tree cover although tree cover is notable along watercourses. Woodlands are present but they have mostly been replanted with single-age stands of poplar. There appears to be a greater dominance of arable than grazing and fencing rather than hedgerows now define the field boundaries. Such a landscape would be described as being in poor condition.

Considering **modification**, and taking the Principal Timbered Farmlands example again, the condition of the first example (with good representation of its characteristic attributes) would be considerably reduced if, in addition, it had been modified by the introduction of belts of conifers, ornamental species had been widely introduced into the area, many of the fields had been subdivided by wooden ranch-style fencing to create pony paddocks, and large housing estates had been added to the original small settlement clusters.

The magnitude of the effect of weakening landscape character either by declining representation of characteristic attributes, or by the introduction of attributes that are non-characteristic, or both, is defined by the degree to which such deterioration can be rectified. Deteriorating hedgerow tree populations can be restored (in the long term) by new plantings of appropriate species, fence lines in formerly hedged landscapes can be removed and new hedges replanted.

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6.8 Assessing landscape condition - from the generic to the specific (continued)

Some changes, such as those to the built environment, are less easily ameliorated, if at all. Their impact on landscape condition is therefore far greater. The method of assessment of landscape condition employed in the Worcestershire analysis is given below.

Representation is first calculated by assigning two scores for each attribute - a score for overall status of the attribute and a score for any losses of that attribute that appear to have taken place. These two scores are then summed in a matrix (Table 2a) to give an overall representation score.

Modification is similarly calculated by assigning two scores for each attribute - this time, one score for any uncharacteristic or damaging additions

and another score for the potential for mitigation (i.e. alleviating the impact of any modification).

Condition is then calculated by subtracting the **modification** score from the **representation** score, in order to reflect how modifications detract from the condition. The numeric scores have been assigned to each category accordingly such that there can be no minus scores from this procedure. The intention of this model is to take into account the decline of inherent characteristics and the degree to which any deterioration can be remedied. Similarly, it recognises the impact of introduced attributes and the degree to which any such inconsistencies can be mitigated.

Table 2a - Calculation of Representation

Representation		Losses		
		None (9)	Some (6)	High (3)
Overall Status	Good (9)	18	15	12
	Moderate (6)	15	12	9
	Poor (3)	12	9	6

Table 2b - Calculation of Modification

Modification		Additions			
		None (0)	Some (1)	High (2)	Absolute (3) ¹
Potential for Mitigation	Not applicable (0) ²	0	1	2	3
	Good (1)	1	2	3	4
	Moderate (2)	2	3	4	5
	Poor (3)	3	4	5	6

¹ Absolute - when uncharacteristic additions have been such that the original character has been completely lost or supplanted

² Not applicable - situations in which it is not appropriate to mitigate



6.9 Assessing landscape sensitivity

Once the condition of the landscape can be measured, the final piece of the jigsaw fits into place and the **sensitivity** of the landscape can be identified. **Sensitivity is the measure, or reflection, of the inherent resilience of a Landscape Type that is represented in the landscape today.**

Obviously, an area of landscape within a Landscape Type of high resilience, in which the attributes are well represented is going to be more sensitive than an area within the same Landscape Type where the same attributes are in decline, damaged or lost.

Such an indication of actual sensitivity, as opposed to theoretical sensitivity, of a landscape, is the tool that is most relevant to the more area-specific (as opposed to strategic) aspects of the planning process. As already mentioned, the larger the area, the greater the potential for a variation in condition. In order to obtain a meaningful assessment of condition, information should be gathered at the smallest unit used in the landscape character assessment process, the Land Cover Parcel (LCP).

Whilst the measures of vulnerability and tolerance, and therefore resilience, are likely to be subject to only a slow change over time, and therefore can be regarded as 'constant', the condition of an LCP can be subject to rapid change. Condition can be measured and integrated with resilience at any time.

Such flexibility is particularly beneficial as it enables an accurate analysis of the current situation i.e. the condition of the landscape can be taken into account at the time a decision needs to be made about it. It is desirable, however, to have, at an early stage, an overall analysis of the condition of the landscape of the whole county. Such a baseline level of information is necessary in order to:

- place the sensitivity of a particular LCP in context
- enable monitoring of landscape change.

The different Landscape Types within the county, and the variation in condition of the LDUs and LCPs within each of them, will be reflected in a range of sensitivity 'scores'. The sensitivity of a particular LCP will be most meaningful, if it can be related to this range, therefore enabling its relevance in a county, district or more local context to be established.

OTHER APPLICATIONS OF LCA

7.1 Monitoring landscape change

The evaluation of landscape character provides a very effective mechanism for monitoring landscape change. The definition and analysis of key attributes of landscape character, provides a ready data base for which further data collection on a regular basis can be undertaken. The attributes are clearly defined and the approaches to measuring the relevant aspects associated with them, such as resilience and condition, have been identified. These attributes could be regarded as the critical indicators associated with the landscape and as such, act as a barometer to reflect the wider state of the environment, and can be used to indicate, and to predict, changes to that state.

Monitoring landscape change is a particularly pertinent issue, as it provides a means to gauge the effectiveness of landscape policies, and how successfully they are interpreted and implemented, and so contribute to policy review.

Monitoring will also enable wider landscape change to be detected and predicted, and will help gain an understanding of the factors that are influencing landscape change, the spatial differences relating to such changes and the rate at which change is taking place. Such information will, in turn contribute to guiding the effective targeting and prioritisation of resources in such fields as countryside management and forestry.

7.2 Landscape conservation, restoration, and enhancement

The classification of Landscape Types enables those key attributes that define the character of a certain area of landscape to be identified. This alone gives broad guidance as to what should be focused upon in land management or development - whether it be woodlands, hedgerows, settlement pattern etc. - in order to perpetuate a particular landscape character. If hedgerow tree cover is a primary indicator of character, and few such trees remain, or if the tree population comprises virtually all over-mature specimens, it becomes clear that there is a need for interests or incentives to restore the hedgerow tree population. Any means to secure such benefits through planning controls or conditions should be similarly sought. Conversely, if the hedgerow tree population is well represented in such an area, the conservation of such an attribute should be a priority.

The further analysis of vulnerability, tolerance and resilience together enables a greater refinement of this broad guidance. Priorities can be fine-tuned specifically to target those attributes which are either unlikely to be replaced without particular encouragement (those that have lost, or are losing, their function), together with those that can be replaced only with difficulty over a long period of time.

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7.2 Landscape conservation, restoration, and enhancement (continued)

Such analysis can be influential in the assessment and review of available initiatives in order to see if they actually provide sufficient incentive to achieve the required results on the ground. If they fail to do this, some new form of incentive will be urgently required.

Instead of waiting for landscapes to deteriorate and then responding to that situation, the key declining influences can be determined, and measures put into place to try to remedy such decline before it actually manifests itself in the landscape.

The concept of vulnerability, in particular, enables future trends to be discerned, and this opportunity to be predictive enables planning control, and landscape management in general, to become more pro-active rather than reactive.

Taking the **vulnerability** (V), **tolerance** (T) and **resilience** (R) summary for a particular Landscape Type, for example Principal Timbered Farmlands:

Principal Timbered Farmlands		Significance	V	T	R
Land Use	Mixed	Tertiary	M	H	H
Field boundaries	Hedges	Primary	M	M	M
Tree cover character	Ancient	Primary	M	L	L
Tree cover pattern	Scattered	Primary	H	L	L
Enclosure	Organic	Secondary	H	L	L
Settlement	Dispersed	Tertiary	H	M	H

The significance analysis indicates immediately that the primary cultural attributes that define the character of the Timbered Farmlands are:

- Hedgerow boundaries to the fields
- Ancient character of the woodlands/tree cover
- Dominant representation of tree cover in the pattern of scattered trees (the detailed descriptions indicate that hedgerow trees define the primary patterns, those along water courses also having relevance)
- Enclosure pattern

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7.2 Landscape conservation, restoration, and enhancement (continued)

The v.t.r. analysis shows that of these, the scattered (hedgerow) tree populations are of greatest concern as these display high vulnerability, low tolerance and low overall resilience. The key priority in these landscapes should therefore be to safeguard this attribute and encourage its restoration.

The v.t.r. analysis also indicates many other attributes that give cause for concern. The Principal Timbered Farmlands Landscape Type, it must be remembered, is the one of the ancient landscapes and, broadly speaking, the ancient landscapes are far less resilient to change than are the more recent landscapes. In the Principal Timbered Farmlands, it is evident that the future of the organic pattern of enclosure is also of prime concern. Bearing in mind the fact that the conditions relating to the evolution of the organic pattern no longer apply, efforts to safeguard the existing attribute will be particularly important. The ancient character of the woodlands/tree cover is also highlighted - whilst there may be initiatives (through the Forestry Commission) that may enable these woodlands to remain economically viable (and therefore moderately functional), should the ancient character be lost, the impact on landscape character can take a long time to repair - hence the low replaceability rating of this characteristic. The need to retain hedgerows as the characteristic field boundaries, together with respect for aspects of the characteristic brick and timber building style often associated with the settlements in these landscapes, is also relevant.

Guidance for restoration and conservation priorities can therefore be gauged relatively easily from the processes of landscape character analysis. The notion of enhancement of landscape character is a little more difficult to embrace. 'Enhancement' has been interpreted in different ways in other landscape studies, and in the process is often confused with restoration. If the inherent character of a landscape is being restored, that process is considered to be that of restoration. To enhance something implies that it is being made better or different in some way. To 'improve' the landscape may be charting difficult waters as there would need to be sound reasons to explain:

- why the landscape was deemed to be in need of improvement as opposed to restoration
- the nature of the guiding principles that define the manner in which a landscape is 'enhanced'.

To expand the latter point, the process of landscape character assessment is to identify similarities in landscapes, to recognise repeating patterns of attributes that reflect commonalities of evolution and justify their grouping into Landscape Types. To allow a free hand to develop a new palette of characteristics for a particular area could well go against such principles, and point towards change on a random, or chance, basis.

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7.2 Landscape conservation, restoration, and enhancement (continued)

Furthermore, it is likely that it would be those landscapes which had deteriorated beyond the 'point of no return', those which had been devastated, with their primary attributes destroyed, which would be the prime candidates for enhancement. This raises concern about the message this conveys about commitment to perpetuating landscape character. It might well appear that the benefits to be gained from doing little to look after the character of the landscape outweigh those for seeking to perpetuate it. Certainly, working within confines of landscape character, particularly in landscapes of ancient character, is likely to impose far greater constraints, than working in a 'new', custom-designed, functional landscape.

The promotion of landscape enhancement is therefore treated with caution, although the relevance of the concept is recognised and appreciated in certain situations. There will be cases where change occurs within Landscape Types that coincide with opportunities to influence change to the character of those landscapes. It must be stressed that change in this context is something that manifests itself, or has the potential to manifest itself, throughout the area covered by a particular Landscape Type (as opposed to a change that occurs at one particular site). An example of such a change might be that related to sand and gravel extraction in the Settled Farmlands on River Terraces Landscape Type. In Worcestershire, such extraction is occurring at several locations within this Landscape Type and in such instances large bodies of open water are invariably introduced into the landscape as a result of the extraction and restoration processes.

Large bodies of open water are not a characteristic of any Landscape Type within Worcestershire, with the exception of the lakes created for aesthetic reasons in the parklands associated with country houses and their estates, which can sometime reach considerable proportions e.g. Westwood Pool.

Having recognised and accepted these post extraction water bodies as part of the 20th/21st century evolution of these landscapes, opportunities to introduce or modify other attributes arise primarily as a means to help integrate them within the wider landscape. Whilst such opportunities for enhancement are accepted, it is desirable that such enhancement accords with landscape guidance for that particular situation in that particular character area. This will help ensure that such enhancement translates into patterns that are repeated, and can be recognised within the landscape, so conforming to landscape character principles, as opposed to each site developing a completely different identity. It is pertinent to stress again, however, that guidance may help direct the conservation, restoration, or enhancement of landscape character, particularly where an element of control or influence can be brought to bear. However, landowners, and others with appropriate interest in the land, may still be legitimately able to introduce expressions of individuality, and, in so doing contribute to the local distinctiveness of an area.

CONCLUSION

Increasingly, it is acknowledged that landscape has the capacity to act as a unifying factor in planning for the future - providing as it does a spatial framework upon which we can map our ideas and aspirations. Landscape provides the backdrop against which we live and work, is a living a record of our history,

and perhaps most significantly is our greatest natural resource, encompassing biodiversity and other resources. As a result, the range of potential uses of landscape character assessment data in planning is huge - extending through and beyond the statutory planning system to planning in other fields, as summarised below.

Potential use	Potential user
• Development control planning	Development control planners, developers and applicants
• Strategic planning	Strategic planners
• Forestry/woodland planting	FC, NE, Defra, landowners
• Habitat restoration, creation, enhancement	NE, Defra, FC, EnvAg, wildlife trusts, FWAG, landowners, consultants
• Agri-environment scheme targeting	NE, Defra, FWAG, landowners
• Resource protection strategies	NE, EnvAg, Defra, landowners
• Climate change strategies and renewable energy	Local authorities, Defra, NE, EnvAg householders and landowners
• Green infrastructure and rural renaissance	NE, Defra, FC, EnvAg, local authorities, regional bodies, service providers including transport, local businesses, landowners
• Tourism and countryside access	Local authorities, Defra, NE, local businesses, landowners

As a result it is vital that landscape character data is fully accessible to as wide a range of people as possible, so that it may be widely applied, thus rendering its undertaking - with the extensive desk and field study this entails - truly worthwhile.

The Worcestershire County Council Landscapes of Worcestershire web-pages: (www.worcestershire.gov.uk/lca-home) aim to do just that, making available documentation, maps and LCA data to all potential users. Please visit this site for the latest information on Worcestershire LCA and fully interactive mapping and planning advice relating to landscape character issues.



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Planning, Economy & Performance Directorate
Worcestershire County Council
County Hall
Spetchley Road
Worcester WR5 2NP

www.worcestershire.gov.uk