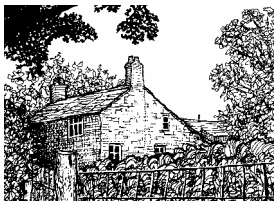
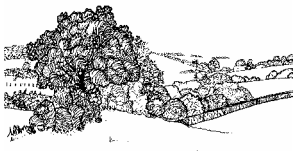
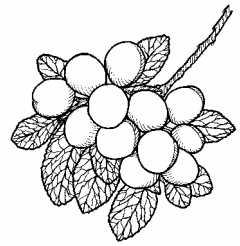
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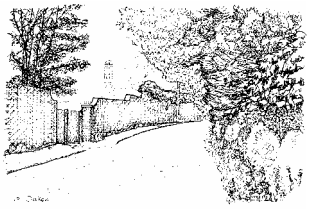


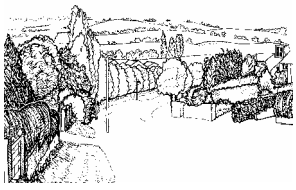












Planning for Landscape Change: Supplementary Planning Guidance to the Staffordshire and Stoke on Trent Structure Plan 1996 – 2011 Supporting Documentation



Planning for Landscape Change:

Supplementary Planning Guidance to the Staffordshire and Stoke on Trent Structure Plan, 1996 – 2011

Volume 2: Supporting Documentation

Staffordshire County Council,
Development Services Department, 2000

Adopted on 10 May 2001 as
Supplementary Planning Guidance
to the Staffordshire and Stoke-on-Trent
Structure Plan 1996-2011

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Part One

The Basis of the Supplementary Planning Guidance

SECTION 1

THE NEED FOR SUPPLEMENTARY PLANNING GUIDANCE ON LANDSCAPE CHANGE

1.1 The Supplementary Planning Guidance which this document supports is aimed primarily at planning officers in the Staffordshire and Stoke on Trent Structure Plan area, and at developers and others who need to be informed about policy and practice for the conservation, enhancement and regeneration of the rural landscapes of the Plan area. It may also prove to be of value in a wider context, as a means of informing other decisions relating to land use and land management.

1.2 The Structure Plan policy to which the Guidance primarily refers is as follows:

Landscape protection and restoration

Development should be informed by and be sympathetic to landscape character and quality and should contribute, as appropriate, to the regeneration, restoration, enhancement, maintenance or active conservation of the landscape likely to be affected. Proposals with landscape and visual implications will be assessed having regard to the extent to which they would:

(a) cause unacceptable visual harm;

(b) introduce (or conversely remove) incongruous landscape elements;

(c) cause the disturbance or loss of (or conversely help to maintain):

(i) landscape elements that contribute to local distinctiveness;

(ii) historic elements which contribute significantly to landscape character and quality, such as field, settlement or road patterns;

(iii) semi-natural vegetation which is characteristic of that landscape type;

(iv) the visual condition of landscape elements;

(v) tranquillity.

1.3 Every Structure Plan policy should be interpreted in the context of all others, and in this respect those relating to the following issues are particularly relevant:

- sustainable development in general
- the need for high standards of quality of development
- urban regeneration and the reuse of derelict, contaminated, degraded or underused land in preference to taking greenfield land
- the management of change in rural areas, and the protection of open countryside for its own sake
- protection of the Green Belt
- the strict control of housing development by means of new buildings in the open countryside
- the protection of 'best and most versatile' agricultural land

- special measures for the protection of the Peak District National Park and the Cannock Chase Area of Outstanding Natural Beauty
- the safeguarding and consolidation of linear and other landscape features which are of major importance for wild fauna and flora

Local Plan policies are also an important part of the Development Plan context and the same process of cross-referral to other relevant policies will be equally important with respect to them.

1.4 Planning Policy Guidance note 7, *The Countryside - Environmental Quality and Economic and Social Development* (Department of the Environment, 1997), requires a fundamental reassessment of local countryside designations such as Special Landscape Areas (SLAs). The guidance indicates that designations should only be maintained or extended where there is good reason to believe that normal planning policies cannot provide the necessary protection. In reviewing development plans, the function and justification of existing local countryside designations should be rigorously considered, and planning authorities should ensure that they are soundly based on a formal assessment of the qualities of the countryside. The guidance also commends the approach to the identification of countryside character pursued in the *Character of England* project instituted by the former Countryside Commission and English Nature, and suggests that it should help in accommodating necessary change without sacrificing local character.

1.5 PPG7 was published during the period of review of the Structure Plan for Staffordshire and Stoke on Trent. In response to it Staffordshire County Council has undertaken a project in partnership with the former Countryside Commission (now the Countryside Agency), to build on the character-based approach advocated in PPG7 by evaluating the landscapes of the Plan area, and mapping their quality or effective strength of character. The meaning of landscape quality is discussed in detail in Section 7. In addition to the evaluation of quality, a method has been developed for assessing and mapping the general sensitivity to change of landscape units. This relationship between sensitivity and quality provides a means of determining the most appropriate measures for the conservation, enhancement or regeneration of landscapes.

1.6 The application of this approach has resulted in the identification of five types of landscape policy zone, covering the whole of the Plan area, which are proposed as a replacement for previous non-statutory landscape designations. These types of policy zone are each associated with a corresponding class of landscape quality. The zones have been mapped but their detail precludes inclusion in the Structure Plan. Maps and descriptions of them have therefore been published as Supplementary Planning Guidance. It is recommended for adoption and use by the local authorities, initially as an interim measure until existing local plans are replaced or amended, and thereafter as Supplementary Planning Guidance to the new or revised local plans.

1.7 The statutory designation of the Cannock Chase Area of Outstanding Natural Beauty and of that part of the county falling within the Peak District National Park, which is outside the Plan area, is unaffected by this process.

SECTION 2

THE APPROACH TO THE FORMULATION OF LANDSCAPE POLICY GUIDANCE

2.1 The methodology that will be described in later sections has delivered a means of mapping both landscape quality and the sensitivity of landscapes to the impacts of change.

2.2 Five classes of landscape quality have been identified, and five types of zone reflecting broad landscape policy objectives have been derived on that basis, as shown on Map 1 and in Appendix 1. They are as follows:

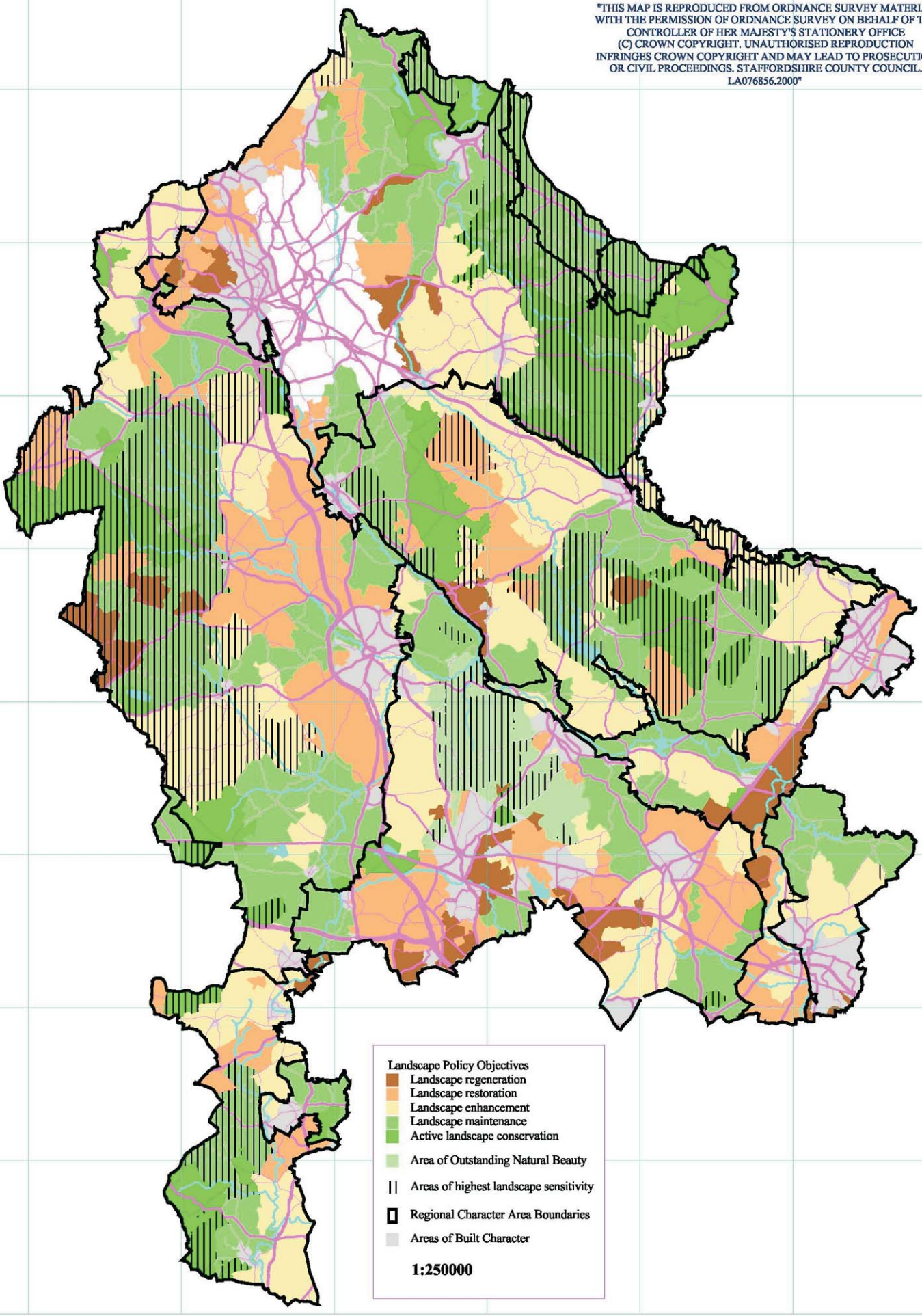
Landscape quality	Landscape policy objective
Very high	Active landscape conservation. Most of these landscapes owe much of their quality to the survival of semi-natural habitat that is not self - sustaining, or, as in the case of parklands, to past land use decisions that are no longer fully economic. Continuous practical activity is therefore required to conserve them, and they should be priority areas for the targeting of resources to that end.
High	Landscape maintenance. In most cases the existing economically-determined pattern of land use has resulted in these landscapes of high quality. There is therefore a lesser need for the targeting of landscape conservation resources to these areas. However, there is a danger that a change in the farming or land use pattern could have rapid and serious consequences for landscape quality. Such changes may already be underway, with their effects on the landscape currently not apparent. They could also be precipitated by future developments in national or international agricultural or forestry support policies, by the introduction of new technologies, or by novel misfortune with consequences similar to those of Dutch elm disease or BSE. There is a particular need for vigilance in these areas, and for a means of predicting and moderating the impact of changes in land use policy.

Moderate	Landscape enhancement. These areas have suffered some erosion of strength of character and loss of condition of landscape elements. In some, but by no means all cases, this appears to be linked to a change in the farming pattern, from grassland to arable production. It may be that in time a new character will emerge from that change, but it is unlikely that the condition of traditional features such as small woodlands and hedges will improve without intervention. There is a particular need, therefore, to encourage relatively small-scale landscape conservation schemes such as hedgerow maintenance, habitat creation and tree and woodland planting, to stem the decline in landscape quality that will otherwise become more evident.
Low	Landscape restoration. A range of causes have contributed to the decline of these areas: in some it has been mineral working and industrial activity which has left dereliction in its wake; in others the problems are largely those of the urban fringe, and in the deeper countryside it has often been a change to intensive arable farming that has led to the loss of landscape elements that formerly contributed to character and quality. In each case, enough of that character survives to guide restoration efforts, which must be pursued with some commitment if the decline in these areas is to be halted and reversed.
Very low	Innovative landscape regeneration. In these areas the loss of character and the decline in condition, as a result of the processes noted above, is so advanced that restoration is no longer possible – either because there is virtually nothing to restore to, or because there is no practicable means of achieving that restoration – and a programme of regeneration to a new vision is required. These are therefore the most challenging of landscapes, both in terms of the difficulties that have to be overcome and of the investment that will be required to regenerate them.

2.3 The policy zones map is not an exact reflection of current landscape quality because it makes some allowance for predictable future change. The Trent Valley, running south-west from Burton-upon–Trent, is of low landscape quality and could be expected to attract the policy objective of landscape restoration. However, large-scale sand and gravel winning, currently underway and allocated for the future, will result in large bodies of open water and wetland, which should be of particular value for recreation and as wildlife habitat. Restoration to the original character of the river valley is neither possible nor appropriate, and for this reason the valley is included in

Map 1: Landscape policy objectives

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an ‘innovative landscape regeneration’ zone. A similar adjustment has been made to the zoning of two landscape units that will be influenced by the building of the Birmingham Northern Relief Road.

2.4 Landscape sensitivity is a general indication of the extent to which a landscape can accommodate change without unacceptable detrimental effects on its character. Areas which are of the highest landscape sensitivity are shown on Map 1 and Appendix 1. In such areas more restrictive planning policy can be justified with, e.g. a strong emphasis on development being appropriate to the character and quality of the area, in terms of standards of design and use of traditional styles and building materials, etc. Opportunities for mitigation of impact and for compensation will be limited in such areas.

2.5 The landscape evaluation methodology has shown that landscape quality can be assessed with respect to the following factors:

(i) the presence or absence of landscape elements which have had some permanence over time, and which are characteristic features of that landscape type;

(ii) the presence or absence of relatively novel features which do not reflect the underlying landscape character, and are incongruous in that landscape type;

(iii) the condition of landscape features, and the likelihood of their continuing survival as functional landscape elements;

(iv) the extent to which the landscape exhibits a clear and consistent pattern of components resulting from a particular course of historical development;

(v) the continuity or ‘time depth’ of the landscape, which is a function of the length of time since the last major change of land use that contributed significantly to current landscape character;

(vi) the extent of survival of semi-natural habitat that is characteristic of the landscape type.

2.6 These factors also contribute to landscape sensitivity, along with the landscape’s general visibility and its tranquillity. The extent to which any development or other change of land use would result in erosion of landscape character and loss of quality can be assessed by determining its impact with respect to these basic factors. This is the underlying rationale of the Structure Plan policy.

SECTION 3

THE APPLICATION OF THE SUPPLEMENTARY PLANNING GUIDANCE

Local Plans

3.1 Local Plans may build on Structure Plan policy for landscape protection and restoration using the Supplementary Planning Guidance in support, as follows:

(i) by requiring that development be informed by local landscape character, as described in the Guidance, and be sympathetic to it in terms of location, siting, scale, materials and design;

(ii) by illustrating in detail the boundaries of the five types of zone relating to broad landscape policy objectives shown on Map 1 and Appendix 1, as a means of facilitating an appropriate test of acceptability of development, i.e. the extent to which it can contribute to either the regeneration, restoration, enhancement, maintenance or active conservation of the landscape likely to be affected;

(iii) by illustrating in detail the boundaries of the areas of highest landscape sensitivity shown on Map 1 and Appendix 1;

(iv) by drawing on the characteristics set out in paragraphs 2.2 to 2.4 above, in the drafting of appropriate policies.

3.2 It will be for local plan authorities to decide whether to use this information to substantiate local countryside designations such as Special Landscape Areas, or to modify their boundaries. The Structure Plan authorities take the view that any such designations would now satisfy the test of being "soundly based on a formal assessment of the qualities of the countryside" as required by PPG7. However, the need for such designations is felt to be limited; policies formulated to apply specifically to identified areas of higher landscape quality and sensitivity will perform a similar function to those previously applying to SLAs, but possibly with greater authority, whilst landscapes of lower quality and sensitivity can also benefit from dedicated policies.

Development Control

3.3 Until new Local Plan policies are in place, and possibly thereafter, the Guidance will be of assistance in informing development control decisions. The tests laid out in Structure Plan policy for landscape protection and restoration are as follows:

1) Are the development proposals adequately informed by an understanding of the landscape character of the area within which the development would be sited? Has the applicant made reference to *Planning for Landscape Change*, or to the relevant section of the Countryside Agency publication *Countryside Character, Volume 5: West Midlands*, or has an adequate independent landscape character assessment been carried out?

2) Is there evidence that the proposal has taken account of local landscape character, e.g. in the choice of building materials and in the design, siting and scale of the development?

3) Will the proposed development contribute to the appropriate landscape policy objective for the area? This can be determined by reference to Map 1. In any landscape there will be a need to conserve some features, to restore some, and possibly to replace others, in order to maintain or improve landscape quality, but one of these themes will predominate. Thus, conservation is most important in areas where the landscape features are in good condition and its character is strongly expressed, and regeneration is the predominant theme where character has been severely eroded and landscape features are in poor condition.

4) To what extent would the proposed development be visually intrusive? The general visibility of each landscape, as determined by its landform and its tree and woodland cover, has been mapped (see Appendix 1), and this contributes in part to the assessment of landscape sensitivity. However, this question has to be addressed site-specifically.

5) To what extent will the proposed development lead to the introduction of features that are incongruous to the landscape in question, or are there proposals for the removal of such features? Examples of incongruous features are given in the detailed descriptions of landscape types. In this respect development could have a positive impact, e.g. by removing industrial dereliction, or a negative impact, e.g. by introducing overhead power lines to a rural farming landscape previously devoid of them.

6) Will the proposed development have an adverse impact on the evidence of human interaction with the landscape over time, and to what extent? Such evidence includes the pattern of settlement, from dispersed farmsteads to nucleated villages; the pattern of field enclosure; agricultural artefacts, such as ridge and furrow; the distribution of woodland and trees, and the road and track pattern. Development can only rarely have a positive impact over the short term in this respect, but good design can minimise its negative impact.

7) Will the proposed development lead to the loss of semi-natural vegetation that is characteristic of this type of landscape, or will it provide opportunities for its conservation, restoration or reintroduction? The emphasis should be on such vegetation being characteristic: there is little or no value, e.g. in attempting to create heathland in a landscape that has not contained it historically. To do so could undermine landscape character, rather than reinforcing it.

8) To what extent will the proposed development affect other characteristic landscape features, and will the impact be positive, e.g. by conserving features that are otherwise at risk, or negative, by removing them? The features characteristic of each landscape type are listed in their detailed descriptions.

9) Will the proposed development have any impact on the visual condition of all of the elements that combine to give the landscape its distinctive character, and will that impact be positive or negative? As an example, development adjacent to previously unmanaged woodland, and dependent on it for screening, could lead to the implementation of a management plan for it, and this could improve both its visual condition (e.g. by the replanting of windblown areas) and its likelihood of long-term survival.

10) Will the proposed development have any impact on the tranquillity of the area? Tranquil areas are those that are sufficiently remote from the visual or noise intrusion of development or traffic to be considered unspoilt by urban influences. They are mapped in Appendix 1. Within tranquil or semi-tranquil areas there is a risk that built development or increased road traffic associated with it will have a negative impact on their tranquillity.

Landscape policy objective appropriate to the area:					
Impact with respect to:	**Nature and strength of the impact**				
	Strongly negative	Negative	Neutral	Positive	Strongly positive
Incongruous landscape elements					
Historic landscape elements					
Characteristic semi-natural vegetation:					
Other landscape elements adding to distinctiveness:					
Visual condition of landscape elements:					
Tranquillity:					
Visual impact:					
Overall contribution to the landscape policy objective:					

3.4 A matrix, such as that illustrated above, may be a helpful means of summarising the assessment of the likely impact of a proposed development on landscape character.

3.5 The landscape descriptions should also help to identify measures that would be of particular benefit for each landscape type in minimising adverse impact, in mitigation or compensation, and in making a positive contribution to the maintenance or improvement of landscape character and quality.

3.6 The maps in Appendix 1 will give some indication of the critical factors that determine and limit landscape quality, e.g. it could be that a particular landscape unit has a strong visual character and its characteristic elements are in good condition, but it exhibits very poor survival of habitat at landscape scale, such as hedgerows and woodlands. This is therefore a limiting factor to landscape quality, indicating that particular vigilance is required in conserving all existing habitat, and suggesting an appropriate emphasis for measures in mitigation and for the positive improvement of the landscape. More detailed guidelines to that end will be found under the description of the appropriate landscape character type.

3.7 The use of the Guidance in this way would accord with a recent policy statement from the former Countryside Commission (1998). This stresses the need for the planning system to deliver a net environmental gain from all necessary development, which should:

> compensate for any net loss of countryside where green field land is used, by enhancing the quality of the remaining countryside and its sense of place ...

Design Guidance

3.8 PPG7 indicates that the design of new building in rural areas should have proper regard to the context for development, in relation to both the immediate setting and the defining characteristics of the wider local area, as a means of contributing to a sense of local identity and regional diversity. It is envisaged that the detailed landscape descriptions given in the Supplementary Planning Guidance will be of value in helping to define that context for all forms of development. They should also be of assistance to local planning authorities undertaking the preparation of Countryside Design Summaries or other detailed design guidance, and to local communities preparing Village Design Statements. Both of these techniques to promote good design in rural areas have been developed by the Countryside Commission/ Countryside Agency, and their adoption is recommended by PPG7.

Strategy Development

3.9 The Guidance should develop and become more comprehensive as further work is completed by the strategic and local planning authorities, and by community and local interest groups. The landscape character type descriptions, which were informed by the *Character of England* output and by Natural Area Profiles, will themselves be of value in informing a range of new projects. Those projects should in turn identify, in more detail than has been possible so far, more of the elements that contribute to local distinctiveness and strength of character. These can be incorporated in a revision of the Guidance, which will also be able to identify further desirable actions in mitigation or compensation, as a result of that further detail. Those actions might be considered under the following headings, among others:

- the restoration of derelict and degraded land
- rural regeneration initiatives
- the removal of clutter
- the conservation and restoration of parks and gardens
- increasing woodland cover
- meeting biodiversity targets:
- overcoming fragmentation
- heathland conservation and restoration

The Government's *England Forestry Strategy* (Forestry Commission, undated) has recently focused attention on the potential role of woodland planting and management in meeting objectives for landscape protection and restoration. Appendix 2 considers these issues in more detail.

Responding to Consultation

3.10 The County Council will adopt and use the Guidance to provide a landscape context for responses to consultations, e.g. from the Environment Agency on its *Local Environment Agency Plans*; from the Farming and Rural Conservation Agency on the targeting of Countryside Stewardship, and from the Forestry Commission on large scale forestry proposals. The identification of 'landscapes at risk', i.e. those which are in relatively good visual condition, but are at risk of decline because of some loss of functional integrity (see paragraph 7.19) is a means of targeting resources to areas where they are likely to prove most effective in safeguarding landscape character and quality.

Limitations to the Use of the Guidance

3.11 The landscape policy objective zones, which inform the Structure Plan policy, have been derived through a process of the analysis of landscape character and of its quality, which has been defined in a technical sense as a function of strength of character and of the condition of landscape elements. This structured and rigorous approach is favoured by the Structure Plan authorities because of its transparency, and because the effect of individual subjective judgements on the relative value of different landscapes can be minimised. However, it should be recognised that this approach deliberately avoids some aspects of the appreciation of landscapes which may very well be relevant to the planning process. These include:

(i) individual perceptions of scenic beauty. As argued below (Section 7), all landscapes which are generally regarded as beautiful will be of high quality, but the reverse is not necessarily the case;

(ii) individual and collective perceptions of landscape value. A particular area of countryside may be highly valued because, e.g., it is readily accessible or provides particular recreational opportunities, and that value may to an extent be independent of its landscape quality. There may also be a collective value attached to a landscape which has strong cultural ties for local communities, so that e.g. the surviving reminders of former mining activity, such as vegetated spoil heaps, may contribute to a highly-valued landscape that is not necessarily beautiful or of high quality. There may also be a national value attached to landscapes of historic significance, such as the scenes of famous battles, that is not determined by landscape quality;

(iii) perceptions of landscape rarity. As the process of landscape analysis, based on the *Character of England* approach, develops it is likely that rare and endangered landscape types may be further identified and a recognition will develop of the need to conserve them, just as rare and endangered plants and animals are conserved. In Staffordshire examples of the 'settled heathlands' landscape type on river terraces are rare and localised, and given the particular attributes and historical evolution of the type it is likely to be nationally rare. There may be a case for particular efforts being made to conserve the distinctive characteristics of such landscapes, within the overall process of landscape evolution, irrespective of their quality.

3.12 It should also be recognised that the landscape descriptions which comprise much of the Supplementary Planning Guidance are just that: they are descriptions of whole landscapes, and not of parts of landscapes or site-specific features. Within any tract that has emerged as of high quality or sensitivity there may well be areas which, in

isolation, could be regarded as of a lower order in those respects, and *vice versa*. Similar considerations apply to the landscape policy objective zones shown on Map 1 and Appendix 1. Although one objective will predominate in any given area there will be a need to conserve some features, to restore some, and possibly to replace others, in order to maintain or improve landscape quality. The landscape descriptions do not obviate the need for detailed site-specific analysis of the likely landscape and visual impacts of development.

3.13 It should be noted that the mapping units used throughout the guidance have boundaries which have generally been drawn to follow a recognisable feature on the ground; but in appreciating landscape character our perception does not stop at such boundaries. The character of any particular area will be influenced visually by that of surrounding areas. Decisions relating to the location and nature of development should be informed by all of the relevant material in this guidance, and it will sometimes be necessary to refer to two or more landscape character descriptions, and to consider the landscape policy objectives for surrounding land.

Part Two

The Derivation of the Guidance

SECTION 4

LANDSCAPES AND LANDSCAPE CHANGE

4.1 The modern countryside has come about through a long process of interaction between people and the basic elements of the land: the rocks and soils, the hills, slopes and valleys, the streams and rivers that drain them, and the plants and animals that are native to the area, or that have been introduced to it. Physical influences such as geology and landform are often the key determinants of landscape character, but in places the overlying pattern of settlement, land use, or field enclosure may be more significant. Human influences are evident not only in the presence of physical features such as hedgerows and buildings, but also in the way in which the land has been owned and managed. The resulting landscapes are neither wholly natural, nor are they entirely man-made artefacts.

4.2 There is and has been great variation in the relationship between these basic elements, through space and time. Changes in soils or a boundary between rock types still influence cropping patterns and the distribution of wild plants, despite centuries of farming; variations in social structures which came about before the Middle Ages, and more recently, have left their legacy in the distribution and arrangement of villages and settlements that are still with us. The dialogue between people and the land has been long and constantly changing, but always within the limits set by these elements. This effect has given rise to a particular distinctiveness - a sense of identity - in each part of the county. Kinver and its environs are very different from Leek and the Moorlands for very good reasons, which inform and define the experience of place.

4.3 Because our landscapes result in part from human activities they have been in a constant state of change, and will continue so. Attempts to preserve them unchanged into the future are generally misguided and bound to fail. The increasing pace and scale of change, however, has become a major cause for concern and there are many who feel that much of what is valued is in danger of being lost, while much of what is new is bland, insensitive and lacking in character. There is a danger that modern technological processes will unwittingly erode local distinctiveness and the quality associated with the experience of place, because they need not be constrained by the limitations previously imposed by the rocks and soils and patterns of settlement: a danger that the special qualities resulting from the historic dialogue will be drowned out by the visual equivalent of noise.

4.4 With growing evidence that present day processes of change often degrade rather than strengthen the character of the countryside, there is an urgent need to find effective mechanisms for reversing this trend. This does not mean that we need to go backwards to some rural idyll, even if this were possible, but if we are serious about conserving the character of the countryside we need to find ways to retain pattern and diversity in landscape. The challenge that we are faced with is to find new ways of accommodating change, whilst maintaining that link with the past which helps to give us a sense of belonging. Maintaining this link will require a commitment not only to manage the countryside, but also to guide and control the forces for change.

4.5 The meaning of ‘landscape’ has itself changed with time, from its original application to a unit of ownership or jurisdiction (Schama, 1996, p.10), through its use to describe a succession of pleasing views, to modern applications relating to inclusiveness and totality. A definition is therefore required for this guidance, and the following is proposed:

Human perceptions of the land in its entirety, including its natural features and the way it has been modified by human activities, at a scale that is larger than the individual site, but smaller than the global environment (after Warnock, 1997).

4.6 Under this inclusive definition the archaeology and ecology of the land are as important in defining landscape character as are the nature and visual arrangement of its components.

SECTION 5

LANDSCAPE CHARACTER ASSESSMENT AND THE *CHARACTER OF ENGLAND* PROJECT

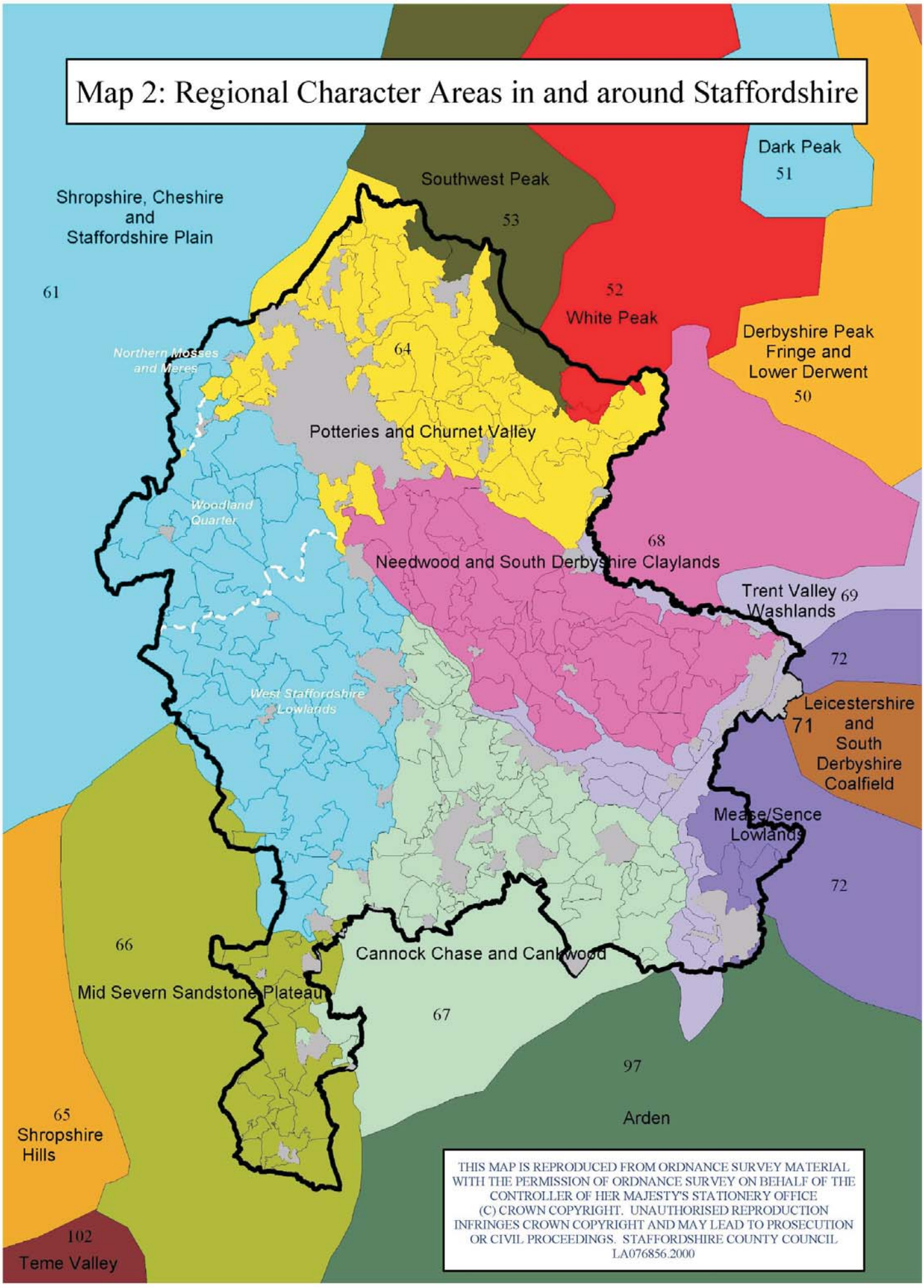
5.1 Landscape character is an expression of pattern within the landscape itself, resulting from particular combinations of natural (i.e. physical and biological), historical and aesthetic factors that make one place different from another. The assessment of landscape character involves a rigorous analysis and description of these factors, in order to convey an informed picture of the landscape without reflecting personal preference, or making value judgements.

5.2 Although many authors writing about landscapes have used some of these elements of analysis over a long period, landscape assessment as a rigorous discipline probably dates to work carried out in the late 1960s as a precursor to the production of the first County Structure Plans. The emphasis then was on the use of multivariate statistical analysis of the distribution of landscape components, such as trees, hedges and woodlands, and of the measurement of landform, in an attempt to discern distinctive patterns. The results were variable, and in hindsight the methodology was questionable, and no consensus was reached on its development.

5.3 In 1987 the Countryside Commission published *Landscape Assessment: a Countryside Commission Approach* (CCD 18), which was probably the first guidance on a structured approach to landscape evaluation for designation and planning purposes. This was followed by a ground-breaking project in Warwickshire which led to the publication of CCP 332, *Assessment and Conservation of Landscape Character - the Warwickshire Landscapes Project Approach* (Countryside Commission, 1991). The 'Warwickshire method', as it came to be called, rapidly gained acceptance as the most comprehensive and rigorous approach currently available, and was valued in particular for its promotion of the assessment of landscape character, rather than quality, as a basis for landscape planning and land management. Several local authorities have used the method to produce landscape assessments, including Staffordshire County Council, which used it as the basis of fieldwork for an Indicative Forestry Strategy (Price, 1993: Staffordshire County Council, 1995).

5.4 In the mid-1990s the Countryside Commission recognised the need to build on a developing trend of looking wider in its strategic thinking than the areas of landscape with special qualities, such as National Parks and Areas of Outstanding Natural Beauty, which it had originally been charged with protecting. It needed to develop policies for the whole countryside, and as a basis for that process it needed a consistent analysis of the character of the landscapes of England. As no such analysis existed it commissioned, in partnership with English Nature and with help from English Heritage, a project that came to be called the *Character of England* project. The first output was a map which divides England into 181 discrete **Regional Character Areas** (RCAs) based on the interaction at a regional scale between the physiographic elements of landscapes and the patterns of land use and settlement characteristic of them (Countryside Commission and English Nature, undated). Some of the Character Areas are already familiar because of their distinctiveness, e.g. Dartmoor, the Cotswolds, the Dark Peak and the White Peak, but others including some in Staffordshire are less familiar because their character is subtle and less easily defined.

5.5 The extent of the Regional Character Areas that fall wholly or partly within the Structure Plan area is shown on Map 2 and Appendix 1. This is based on the Countryside Commission/ English Nature *Character of England* map, but the RCA boundaries in the Plan area have been drawn to the more detailed boundaries of locally-derived mapping units known as **land description units**. These will be described in more detail in later sections. All of the mapping, description and evaluation presented in the Supplementary Planning Guidance flows from and builds on the character-based approach of the *Character of England* project, as endorsed by PPG7.


Map 2: Regional Character Areas in and around Staffordshire
Dark Peak
51
Southwest Peak
53
Shropshire, Cheshire
and
Staffordshire Plain
61
52
White Peak
Derbyshire Peak
Fringe and
Lower Derwent
50
Northern Mosses
and Meres
64
Potteries and Churnet Valley
Woodland
Quarter
68
Needwood and South Derbyshire Claylands
Trent Valley
Washlands
69
72
West Staffordshire
Lowlands
Leicestershire
and
South
Derbyshire
Coalfield
71
Mease/Sence
Lowlands
72
66
Cannock Chase and Cank wood
Mid Severn Sandstone Plateau
67
97
Arden
65
Shropshire
Hills
102
Teme Valley
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SECTION 6

THE DERIVATION OF LANDSCAPE CHARACTER TYPES

6.1 The most appropriate level at which to describe the overall character of landscapes is generally the Regional Character Area, but this is too broad to be helpful in informing many land-based decisions on e.g. the control of development, the need for investment in rural regeneration, or the best locations for encouraging woodland planting. A finer grain of description and classification is needed, and this has lead to the recognition of the **landscape character type** (LCT). This is a generic term for the representation of a particular combination of landscape elements and land uses that create a particular character. One example could be "riparian alluvial lowland farmlands", representing all examples of farmed landscapes on the alluvial soils associated with the floodplains of lowland rivers. Such a landscape character type could be found within many different Regional Character Areas.

6.2 There is an important distinction to be made here. A Regional Character Area is a unit of land, the boundaries of which enclose landscapes of a broadly similar type. A landscape character type is not a land unit: it is a concept, based on characteristics that can be used to identify and classify a particular kind of landscape. The landscape character type is a very similar concept, with respect to landscapes, to the species concept applying to plants and animals.

6.3 This analogy with taxonomy can be usefully extended. In the same way that the process of biological classification starts with fundamental and ancient divisions (e.g. between "plants" and "animals") and then addresses ever more subtle and recently-derived differences to arrive at the identification of species, so can landscape classification. That process may start with a division into broad types based on almost immutable characteristics of solid geology, followed by subdivision on the basis of more recent drift geology and soils. Further classification takes in rather more transient characteristics such as the pattern of land use, settlement and field enclosure, and the most detailed levels may discriminate between landscapes on the basis of characteristics that may change within a lifetime, such as the amount of tree cover.

6.4 Table 1 illustrates this process as it applies to landscapes in the Structure Plan area. The 'Warnock land character type' can be regarded as the equivalent of the genus, the species of which are landscape character types. It first emerged in a regional landscape assessment of the Midlands (Warnock, 1994). This work identified 25 'land character types' in the Midlands as a whole, of which 14 are found in Staffordshire. (The average for the region is eight character types per county, giving support to the perception that Staffordshire's landscapes are unusually diverse in comparison with the rest of the Midlands.) The original analysis used a multivariate statistical classification program called TWINSPAN (Hill, 1979) to analyse data on the basis of mapping by Ordnance Survey kilometre squares, but with an understanding of the attributes that are being measured the process can be carried out without the use of computer programs, and using more realistic mapping units.

6.5 The mapping unit used throughout the study on which the Guidance is based is the **land description unit** (LDU). This has been derived from field survey during the process of landscape assessment, followed by consultation with environmental specialists. LDUs are the largest homogeneous units sharing a similar pattern of physical, biological and historical components. They can be used as mapping units across disciplinary boundaries encompassing ecology, archaeology and landscape,

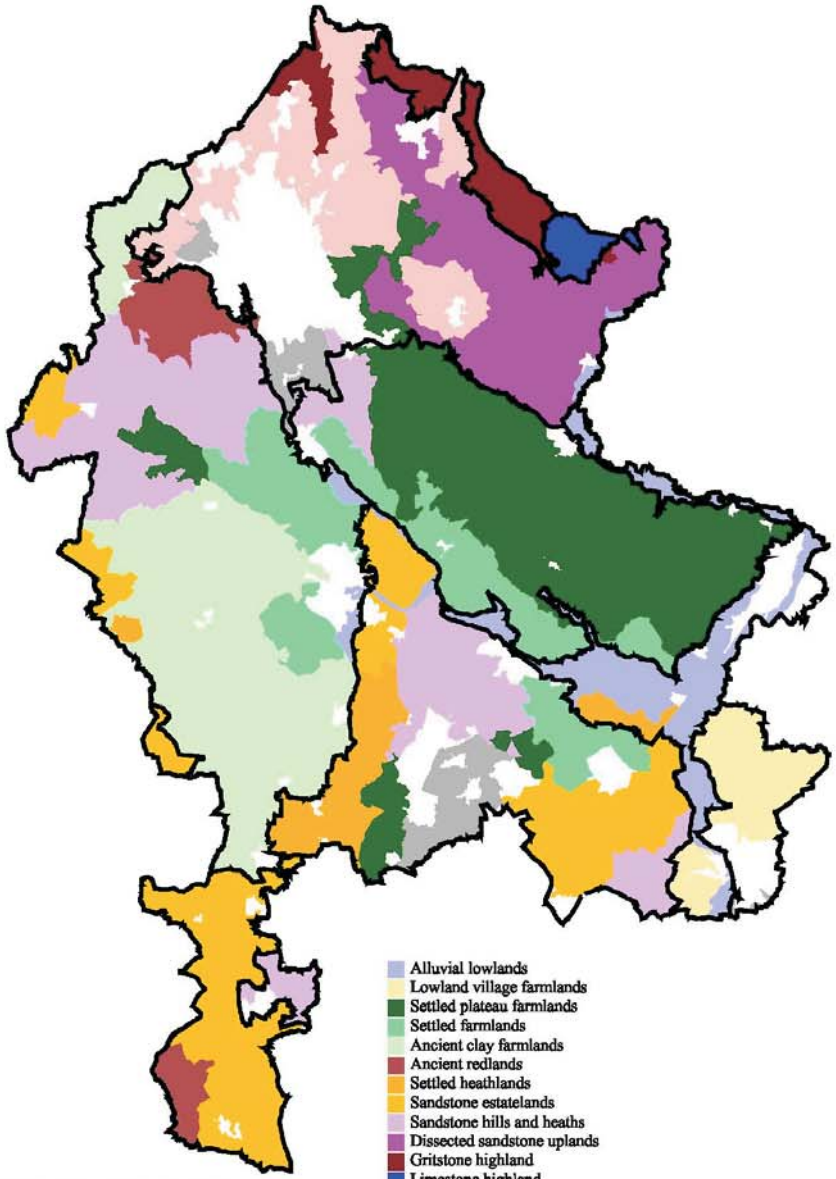
and as such they are the basic units on which assessment, evaluation and decision making are based.

6.6 Map 3 shows the distribution of areas corresponding to the 14 Warnock land character types, mapped by LDU. To arrive at landscape character types, the Warnock classes were sub-divided principally on the basis of topography and elevation to: highland fringe; uplands; cloughs and valleys (restricted to upland areas); plateaux; slopes ("a block of terrain which involves both higher land and low land, but which lies between even higher and lower land" [Roberts and Wrathmell, 1995, p.34]); river terrace, and riparian (i.e. closely associated with a floodplain). In one case only subdivision was based on the pattern of field enclosure, which is so distinctive as to create a separate landscape character type. The case in question is the former core of the Forest of Needwood with two outlying areas. Early 19th century Parliamentary Enclosure following disafforestion has created a landscape characterised by geometric fields bounded by single-species thorn hedges, with straight roads with multiple junctions, and a distinctive style of farm buildings.

6.7 Map 4 shows the distribution of the 22 landscape character types that have been arrived at by this process. Classification and description at the level of the landscape character type will be most appropriate for many applications requiring an understanding of landscape character. However, a further level of sub-division, into landscape character sub-types, will sometimes be necessary, most notably for informing development control and other planning decisions. The 'sandstone hills and heaths' landscape character type provides an example of this need. It is characterised by a pronounced landform of hills and dissected plateaux of Triassic sandstones without drift deposits. Acid sands and brown earths predominate. Significant areas of this type in Staffordshire - in particular Cannock Chase - have the original heathland vegetation or coniferous forests established on heathland. Where conversion has been to farmland stock rearing is the predominant land use, in large hedged fields of a regular pattern, indicating relatively recent enclosure. Thus, farmland, heathland and forest are all expressions of a single basic landscape character type, and they may be transient: on parts of Cannock Chase forest has replaced heathland within living memory, and could possibly revert to it again. However, the issues that would be raised by a proposal to establish a new quarry within the heathland variant of the landscape type would differ from those applying to the forested variant. This further sub-division on the basis of current land use is therefore required, and has been applied to the detailed landscape descriptions in the Supplementary Planning Guidance. Those sub-divisions of relevance to classification in the Plan area were found to be: farmland; estatelands; forest; heathland; parkland, and minerals working and restoration.

6.8 There is at present no national classification of landscape types below the Regional Character Areas. It is suggested that a national typology could be constructed, based on the subdivision described above of the equivalent of Warnock land character types, extended beyond the Midlands. In an attempt to facilitate some future regional comparisons, Staffordshire's landscape character types have been named on the basis of the Warnock classification.

Map 3: Warnock Land Character Types



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Map 4: Landscape Character Types

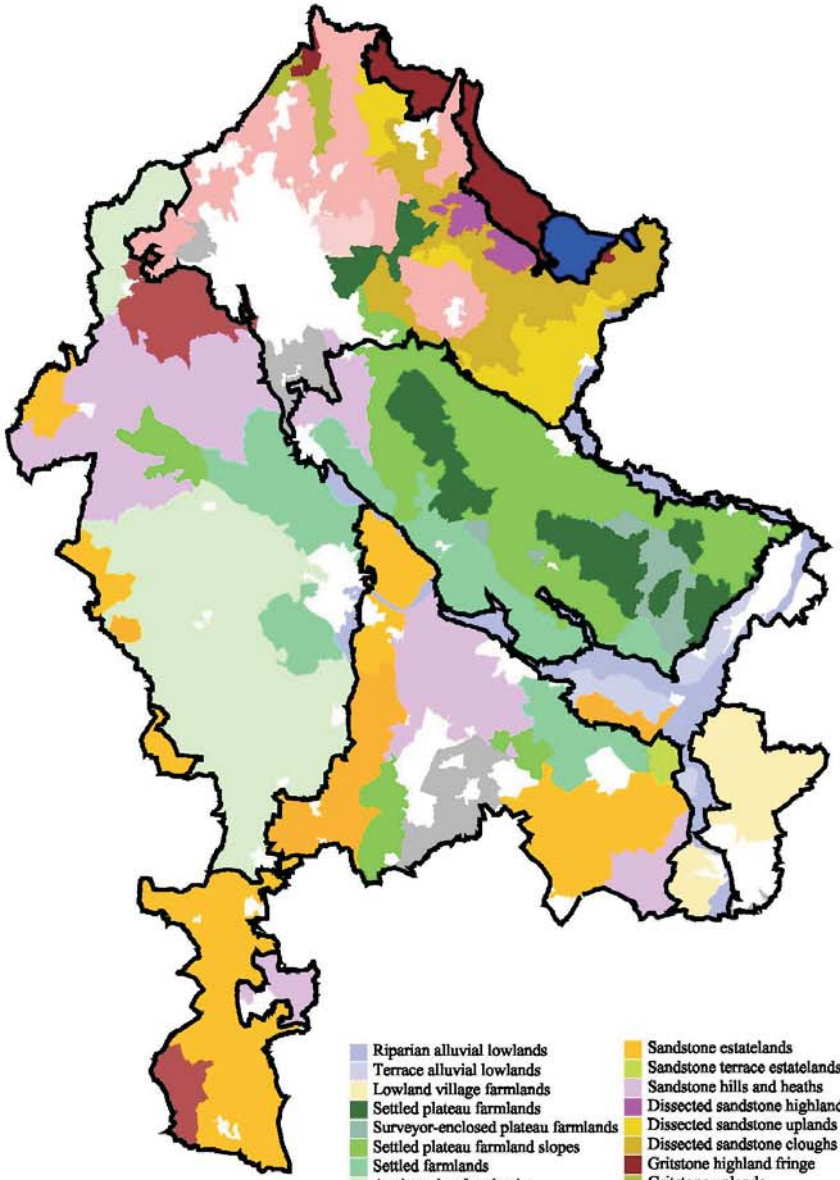


Table 1. The Derivation of Landscape Character Types and Sub-Types

Dominant solid geology	Elevation	Drift deposits	Principal soils	Characteristic semi-natural vegetation	Main farming activity	Settlement pattern	Pattern of field enclosure	Tree cover	Warnock Land Character Type	Landscape Character Type	Sub-Types
Triassic mudstones	Upland	Boulder clay	Non-calcareous stagnogleys	Ancient woodland and heathland	Dairying with some mixed farming	Dispersed, sometimes urbanised, hamlets and farmsteads	Semi-regular, hedged	Scattered woods and copses	Settled plateau farmlands, type 11	**Settled plateau farmlands**	Estatelands Forest
										Surveyor-enclosed plateau farmlands	
										Settled plateau farmland slopes	
	Lowland		Non-calcareous stagnogleys with sandy pockets	Ancient hedgerows and heathland	Dairying with some stock rearing	Dispersed with small rural towns	Irregular, hedged	Sparsely wooded	Ancient clay farmlands, type 14	**Ancient clay farmlands**	Estatelands Parklands
		Alluvium and terrace deposits	Alluvium with some peat	Neutral grassland	Cropping with stock rearing	Large nucleated villages	Regular, large, hedged		Alluvial lowlands, type 1	**Riparian alluvial lowlands**	
										Terrace alluvial lowlands	
		None	Non-calcareous brown soils		Mixed farming with cropping	Large nucleated villages and towns	Semi-regular, medium to large, hedged	Scattered small woods and coverts	Lowland village farmlands, type 4	**Lowland village farmlands**	Parklands
				Ancient woodland	Dairying with some mixed farming	Densely settled, often urbanised, mixed	Varied, small to medium, hedged	Many small woods and copses	Settled farmlands, type 12	**Settled farmlands**	Parklands
Coal measures	Upland	Some boulder clay	Non-calcareous stagnogleys	Acid grassland and wet heath	Mainly stock rearing	Urbanised, many mining villages		Sparsely wooded	Coalfield farmlands, type 24	**Coalfield farmlands**	Minerals working and restoration
					Dairying and stock rearing	Densely settled, dispersed	Irregular, small, hedged	Many small ancient woodlands	Ancient farmlands, type 25	**Ancient plateau farmlands**	
										Ancient slope and valley farmlands	Parklands Minerals working and restoration
			Non-calcareous brown soils	Ancient woodland	Stock rearing with mixed farming	Dispersed hamlets and scattered farmsteads	Irregular, medium, hedged	Many woods and copses	Ancient redlands, type 15	**Ancient redlands**	Estatelands Parklands
Palaeozoic and Triassic sandstones	Lowland	Boulder clay	Acid sands and brown soils	Heathland	Cropping and mixed farming	Dispersed, often urbanised	Regular, small and large, hedged	Varied, often heavily wooded	Settled heathlands, type 17	**Settled heathlands**	Estatelands Parklands
		None	Varied: acid sands, brown soils, stagnogleys		Mainly cropping	Sparsely settled, wayside cottages and expanded hamlets	Regular, large, hedged	Estate woodlands and parkland	Sandstone estatelands, type 18	**Sandstone estatelands**	Farmlands Parklands Forest
										Sandstone terrace estatelands	
	Upland		Acid sands and brown soils		Mainly stock rearing	Dispersed, with many expanded hamlets		Varied, often heavily wooded	Sandstone hills and heaths, type 19	**Sandstone hills and heaths**	Farmlands Estatelands Parklands Forest Heathlands
			Acid sands with some stagnogleys			Dispersed, often densely settled	Regular and irregular, small to medium, hedged and walled	Heavily wooded valleys	Dissected sandstone uplands, type 20	**Dissected sandstone highland fringe**	
										Dissected sandstone uplands	
										Dissected sandstone cloughs and valleys	Parklands Forest
	Highland		Stagnogleys and peat soils	Moorland and upland grassland	Stock rearing with some rough grazing	Low density dispersed farmsteads	Regular, medium to large, walled	Few woods: in cloughs only	Gritstone highlands, type 21	**Gritstone highland fringe**	
										Gritstone uplands	
Carboniferous limestone			Rankers, free draining brown soils.	Calcareous grassland	Stock rearing: some mixed farming	Nucleated, small stone villages	Geometric, large, walled		Limestone highlands, type 22	**Limestone highland fringe**	

SECTION 7

FROM LANDSCAPE CHARACTER TO QUALITY AND SENSITIVITY

7.1 Staffordshire's Special Landscape Areas (SLAs) were originally designated, in the 1973 County Structure Plan, on the basis of an evaluation of landscape quality, using a methodology developed for the Coventry-Solihull-Warwickshire Sub-Regional Study of 1971. It is a requirement of PPG7 that local planning authorities subject existing local countryside designations such as these to rigorous consideration when reviewing their development plans. In order to consider whether the maintenance of existing designations can be justified it is necessary to carry out a further evaluation, as a test of the rigour of the original process, and if possible to determine whether any changes in landscape quality over the intervening 25 years require a re-drawing of any boundaries.

7.2 It should be stressed that the original SLA boundaries have stood up to scrutiny well over that period: their general location and extent have not been seriously questioned. However, the methodology that gave rise to them has fared less well. The technique was based on a survey of the factors which were thought to contribute to or detract from the landscape quality of each kilometre square of the study area, and the measurement of the value of each factor, by weighting scores. The study team carried out a pilot field survey, in which kilometre squares were given scores to reflect their perceived quality. For each square the representation of a number of landscape factors was also measured. The factor weights were then derived by means of step-wise multiple regression analysis, which indicated the amount by which the measurement of each factor needed to be weighted in order for the calculated landscape value of any square to be comparable with the score assigned in the field.

7.3 This model was applied to the Staffordshire Structure Plan. The representation of landscape factors was measured, as for the pilot survey, in each kilometre square and the score for each factor multiplied by the derived weight, after which all factor values were summed to arrive at a total score for each square. The score was taken as a measure of landscape quality.

7.4 Three aspects of this approach militate against its continued application. Most critically perhaps, it appears to take no account of landscape character, but to apply the same set of rules for measuring quality across a range of diverse landscapes. Second, it is in effect an attempt to measure landscape beauty rather than its quality, because all of the objective calculations are based on an original subjective appraisal, in which individual preferences will inevitably figure, despite the professional standards brought to the process. Third, the subjective element is compounded by a subjective choice of the landscape factors to be measured. All farmland, irrespective of its type, emerged with an equal positive weighting whilst all residential land was equally negatively weighted. Conflicts over landscape character were, with hindsight, inevitable; e.g. heathland and hedgerow trees were both positively weighted, despite the fact that a landscape comprising both would be very odd. Undulating landform emerged with the strongest of positive weightings by far, effectively denying quality to a lowland river valley landscape, irrespective of its strength of character.

7.5 A re-evaluation of landscape quality therefore requires a new methodology that is soundly based on an understanding of landscape character, and which reduces the impact of subjective judgements – which cannot be avoided – by making the process of evaluation as structured and rigorous as possible.

7.6 The method of landscape evaluation that was developed to produce the Supplementary Planning Guidance is illustrated in Appendix 1. The basic assumptions on which the method is based are as follows:

(i) Landscape quality is not the same as scenic beauty. The latter is related to the emotional response invoked by the experience of a landscape, and it will be heavily influenced by intrinsic quality, but also conditioned by individual associations, memories and cultural influences. By definition, the experience of scenic beauty is largely subjective. Landscape quality, however, is a function of certain characteristics that are capable of definition and appraisal, and consequently it should be possible to reach general agreement as to what constitutes a landscape of high or of low quality. For a landscape of any given type it is possible to recognise an optimum state in which the intrinsic character of the landscape emerges very clearly; all of its characteristic processes function effectively, and all of its characteristic elements are in good condition. The closer the actual correspondence between a given landscape and this optimum state, the higher will be the landscape quality. All landscapes generally perceived as being beautiful will be of high quality, but it is possible to conceive of landscapes of quality that have no great scenic beauty.

(ii) There are two major contributors to the quality of a landscape: its strength of character and the condition of the elements of which it is composed. In principle, by assessing each of these it should be possible to arrive at a measure of quality. However, in practice the boundaries can be blurred, especially in the case of landscapes in decline. It is often not easy to determine when a decline in the condition of, e.g., hedgerows and hedgerow trees translates to an erosion of strength of character. There is also the problem that strength of character is not an entity, capable of simple measurement. It is the result of many processes and interactions, and it can only be assessed through the building of simplified models of a complex world.

(iii) An alternative approach is to recognise three aspects of landscapes: the visual, the cultural and the ecological. Visual aspects are those relating to the spatial distribution, pattern and condition of landscape elements. Cultural aspects are those determined by the history of human activity, and are reflected in the patterns of settlement, land use, field enclosure and communications. Ecological aspects relate to the pattern and extent of survival of the semi-natural vegetation, and by extension the fauna, typical of the landscape type. The last two, when combined, give a measure of the landscape's functional integrity, or the extent to which it functions successfully as a self-sustaining unit.

(iv) The **sensitivity** of a landscape, i.e. the severity of the impact on it of a given amount of disturbance, is of equal importance to its quality in determining the acceptability of development and other forces for landscape change.

The approach to evaluating and mapping quality

7.7 The identification and mapping of landscape character types (LCTs) is the key to the assessment of landscape quality, from which landscape policy objectives can be formulated. By carefully recording, during field survey, all of the features of all of the areas that are representative of a particular LCT it is possible to construct a profile of

the essential characteristics of that type, and of the relationship between them. Those characteristics include:

(i) the semi-natural vegetation that is typical of the landscape, being influenced by soils, drainage and land use;

(ii) the patterns of land use, field enclosure, settlement and communications that are evidence of the evolution of the landscape;

(iii) the characteristic landscape features that contribute to a sense of identity. For one type these could include drystone walls of Millstone Grit, stone farm buildings, a pronounced landform, unimproved grassland and clough woodlands, whilst another would be characterised by a flat landform with three storey red brick farm buildings, lines of crack willows along dykes and the occasional black poplar adjacent to the river.

7.8 Where landscapes are undergoing rapid change it may not be easy to describe their essential character in this way. The problem is not one of the intensity of land use, but of short term change driven by external factors largely unrelated to the characteristics of the land. An intensively farmed arable landscape on soils derived from the Triassic sandstones is likely to offer some clues to its heathland origins; some bracken will survive in the road verges and occasional groups of Scots pines will probably be found on the boundaries of fields otherwise characterised by the paucity of hedgerows and hedgerow trees. There is a relationship in this case between the pattern of land use and the underlying characteristics of the land that is coherent, and it is not difficult to describe the essential landscape character. A difficulty would arise, however, in an area of heavy clay soils which has supported dairying over a long period, but which is converting to arable, perhaps in response to a market fluctuation. It may be that in the long term the pattern of land use will revert to something more directly related to the characteristics of the land, but in the meantime the landscape gives conflicting and incoherent clues about that relationship. In this case the profile has to be based on the land use that has been sustained over the longer term and more closely reflects the soils and drainage.

7.9 When the profile of a LCT is in place it becomes the standard against which each unit on the ground - the land description unit (LDU) - is compared. A series of standard questions, as listed below, is asked of each LDU in turn, and each is assigned to an appropriate category on that basis.

(i) <u>The presence of characteristic features</u>. To what extent does the LDU possess the range of features which have been determined to be characteristic of the type? In the notional and over-simplified example noted above the type was characterised by walls of Millstone Grit, stone farm buildings, a pronounced landform, unimproved grassland and clough woodlands. The LDU would be categorised on the extent to which these features were represented within it.

(ii) <u>The absence of incongruous features</u>. To what extent is the LDU characterised by the absence of features which are incongruous in that landscape type? These are relatively novel features, not directly related to the underlying characteristics of the land, which tend to erode the strength of character of that landscape.

(iii) <u>Visual and functional condition</u>. What is the condition of the elements that comprise this landscape? Are e.g. the drystone walls and the farm buildings

in a good state of repair, such that their survival as functional elements of the landscape is not a matter of immediate concern? The LDU is categorised on the basis of the comments on the evaluation sheets completed during field survey.

(iv) The survival of cultural pattern. To what extent does the LDU exhibit a clear and consistent pattern of components resulting from a particular course of historical development that contributes to the character of the landscape type? To put it another way, how clearly does this landscape tell the story of its historical evolution? Each LDU was assessed by an archaeologist and allocated to one of five classes as follows:

(a) heavily degraded: land which has been subject to the extensive removal or alteration of distinctive landscape components such as fields, hedges, etc., so as to prevent historical analysis and negate its historical significance;

(b) damaged or non-descript: landscapes which, either through damage or other inherent character, do not possess components which allow any significant characterisation in relation to their historic development;

(c) undisturbed but not remarkable: landscapes which have not been extensively altered, but where there is a lack of any consistent pattern which would enable their categorisation as significant examples of an historic landscape type;

(d) good: landscapes with a consistent pattern of historic components across a wide area sufficient to suggest a common pattern of development;

(e) outstanding: landscapes which exhibit a clear and consistent pattern of components across a wide area resulting from a particular course of historical development. Such areas can, in some cases, be considered "type landscapes" worthy of every effort being made to ensure their conservation.

(v) Continuity. To what extent does the LDU exhibit chronological continuity, or 'time depth'? Although landscapes are in a continuous state of evolution their rate of change is not constant. In lowland England the typical pattern has been one of long periods of relative stasis, separated by short periods of rapid change. The immediate effect of such change, as e.g. during the Parliamentary Enclosures, has been generally to erode landscape character through the removal of characteristic landscape components. But over time a new distinctive character emerges as the landscape is colonised by semi-natural vegetation, as new components mature, and as mistakes relating to the chosen land use are rectified. The strength of landscape character is therefore partially determined by the amount of time that has passed since the last major upheaval that contributed to the present character. Although it is often not possible to date that event precisely the present character of LDUs can generally be ascribed to one or more of the following significant events:

(a) the post World War II period; e.g. open-cast mining; land restoration and reclamation; major agricultural innovation;

(b) 1900 – 1950; e.g. much coniferous afforestation; some deep mining; some industrialisation;

(c) 1850 – 1900; e.g. some deep mining; some industrialisation; some parliamentary enclosure of waste for reasons other than agricultural change;

(d) 1825 – 1850; e.g. some industrialisation; some parliamentary enclosure of waste for reasons other than agricultural change;

(e) 1775 – 1825: e.g. some industrialisation; parliamentary enclosure of waste (including Needwood) for agricultural change; some parliamentary enclosure of open fields; some commissioned design of landscaped parks;

(f) 1725 – 1775: e.g. some early parliamentary enclosure of open fields; some commissioned design of landscaped parks; some enclosure of open fields by private treaty;

(g) 1600 – 1725; e.g. some enclosure of open fields by private treaty;

(h) pre-1600: e.g. enclosure of waste by private treaty; survival to date of ancient semi-natural landscapes.

(vi) Habitat survival at landscape scale. To what extent does the LDU exhibit the semi-natural vegetation characteristic of the landscape type? The profile for the LCT included an assessment of the nature and extent of semi-natural vegetation. Both soils maps and historical sources were used to determine the type of semi-natural vegetation characteristic of a farmed or other cultural landscape of the type in question, under the following headings:

(a) woodland;

(b) wood pasture and wooded parks;

(c) hedges;

(d) heathland or moorland;

(e) wetland;

(f) open water;

(g) riparian habitat;

(h) unimproved grassland.

7.10 Examples of the LCT that were not subject to recent short term rapid change gave an indication of the typical representation of each habitat type in terms of its degree of fragmentation, as follows:

(i) nuclei: habitat represented as large blocks, generally 10 ha. or more in area, that can act as refugia for characteristic species;

(j) clusters: groups of patches (see below) in close enough proximity to allow for at least three-way inter-patch movement of characteristic species;

(k) linear features: patches of a length exceeding 10 times the width, allowing movement of characteristic species and usually but not necessarily connected with other linear features (e.g. hedges, stream corridors, road verges);

(l) patches: relatively discrete habitat units which share similar environmental conditions, are generally less than 10 ha. in size, and are contained within a matrix of habitat that is resistant to free movement of species characteristic of the patch;

(m) fragments: relatively discrete habitat units which are too small to have an ecological function at landscape scale and which, because of isolation within a matrix, are unlikely to be repopulated by any other than the most mobile of characteristic species in the event of chance extinction.

7.11 Finally, each habitat type was classified in terms of its frequency of representation, under the following categories:

(n) widespread: the habitat is common and apparent in virtually every prospect of the LDUs making up the LCT;

(o) frequent: the habitat is relatively evenly distributed throughout the LDUs comprising the LCT, as a series of discrete elements, each of which is clearly separated from its neighbours;

(p) occasional: the habitat is not common and is unevenly distributed throughout the LDUs of the LCT. In many prospects it would not be evident.

7.12 The extent to which the LDU exhibited the range and cover of semi-natural vegetation identified in the LCT profile was used as the means of categorising it.

7.13 These are the basic landscape characteristics that were assessed and used to derive maps using a Geographical Information System (GIS). The remaining parts of the process of quality evaluation entailed the derivation of maps illustrating higher order landscape characteristics from this basic information. The order in which this was carried out is illustrated in Appendix 1. It should be noted at this point that a number of different models were constructed in the course of this work, and their results compared. The first model to produce results which were in accord with professional judgement was much more complex than that which is illustrated, and the extent to which it could subsequently be simplified without harm to the results was surprising.

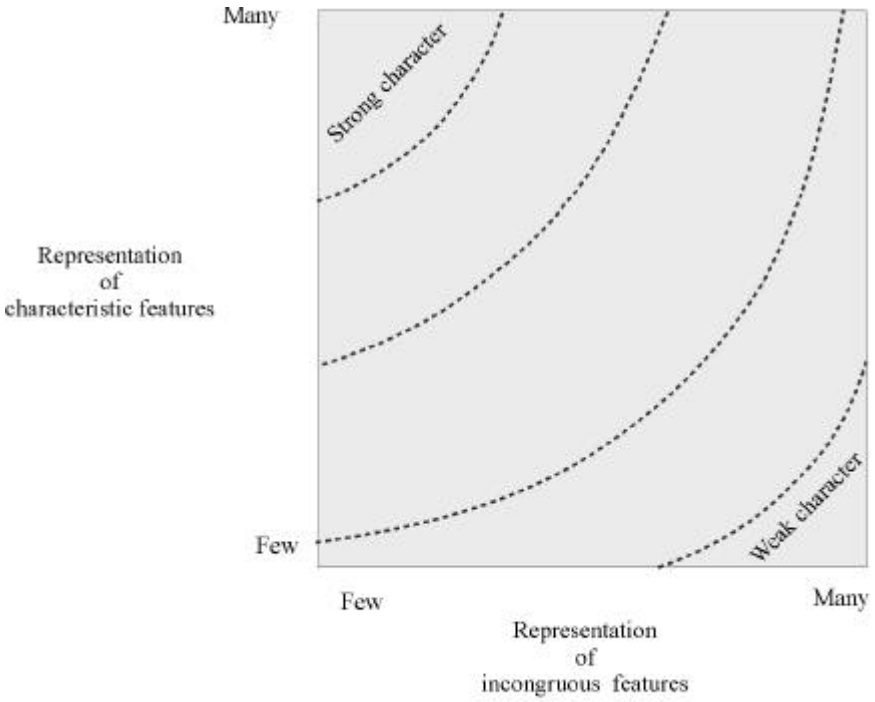


Fig 1: the relationship between
characteristic features, incongruous features and strength of visual character.

7.14 This model assumes, e.g. that the visual character of a defined landscape character type is a function of the presence of the characteristic features of that type, and of the absence of incongruous features. Either of these lower order characteristics can limit the strength of visual character of a landscape. If its characteristic features are well represented but there are many incongruous features its visual character will be weak, as it would also be if there were few of each. Only if there are many characteristic features and few that are incongruous will the landscape have a strong visual character. This relationship is illustrated at Figure 1, which demonstrates how landscape units can be assigned to new classes representing higher order characteristics using the basic evaluation described above.

7.15 At each stage in the process a new map was generated using GIS, and assessed to ensure that it accorded with common sense and professional judgement, before going on to the next stage. These maps are illustrated in Appendix 1.

7.16 That series of maps includes one indicating landscape quality. The highest classes of quality would produce a map very similar to one showing the extent of Special Landscape Areas as indicated on the Staffordshire Structure Plan Key Diagram of 1991. The main differences are as follows:

(1) Four areas shown as SLA on the key diagram have emerged as of lower quality from the current analysis. These are:

(a) an area around Biddulph Moor in the north-west of the Plan area;

(b) the environs of Cheadle;

(c) the Swynnerton/ Hanchurch Hills area to the south-west of Newcastle under Lyme;

(d) the area around Stourton in the far south.

It is notable that each, with the exception of the Hanchurch Hills, is subject to urban fringe influences, which may have increased since the original evaluation of the 1970s on which the SLA boundaries were based. It is also the case that the Biddulph Moor and Cheadle areas have a pronounced landform, a feature that was particularly heavily weighted in the original methodology. The Hanchurch Hills still have a strong visual character, but their functional integrity has been reduced by the loss of characteristic semi-natural habitat.

(2) Some areas, not included within SLAs, have emerged as of high quality. Some are small units, probably not large enough to have been considered for designation. The larger areas are:

(a) the Trent Valley corridor between Stone and Shugborough Park, and between Mavesyn Ridware and Alrewas;

(b) the part of the Mease Lowlands around the River Mease and the villages of Elford, Edingale, Harlaston and Clifton Campville;

(c) an area to the east of the Cannock Chase AONB, taking in Longdon, Maple Hayes and Fradley Wood;

(d) an area to the north and west of Brewood in South Staffordshire, taking in Weston Park and Wheaton Aston.

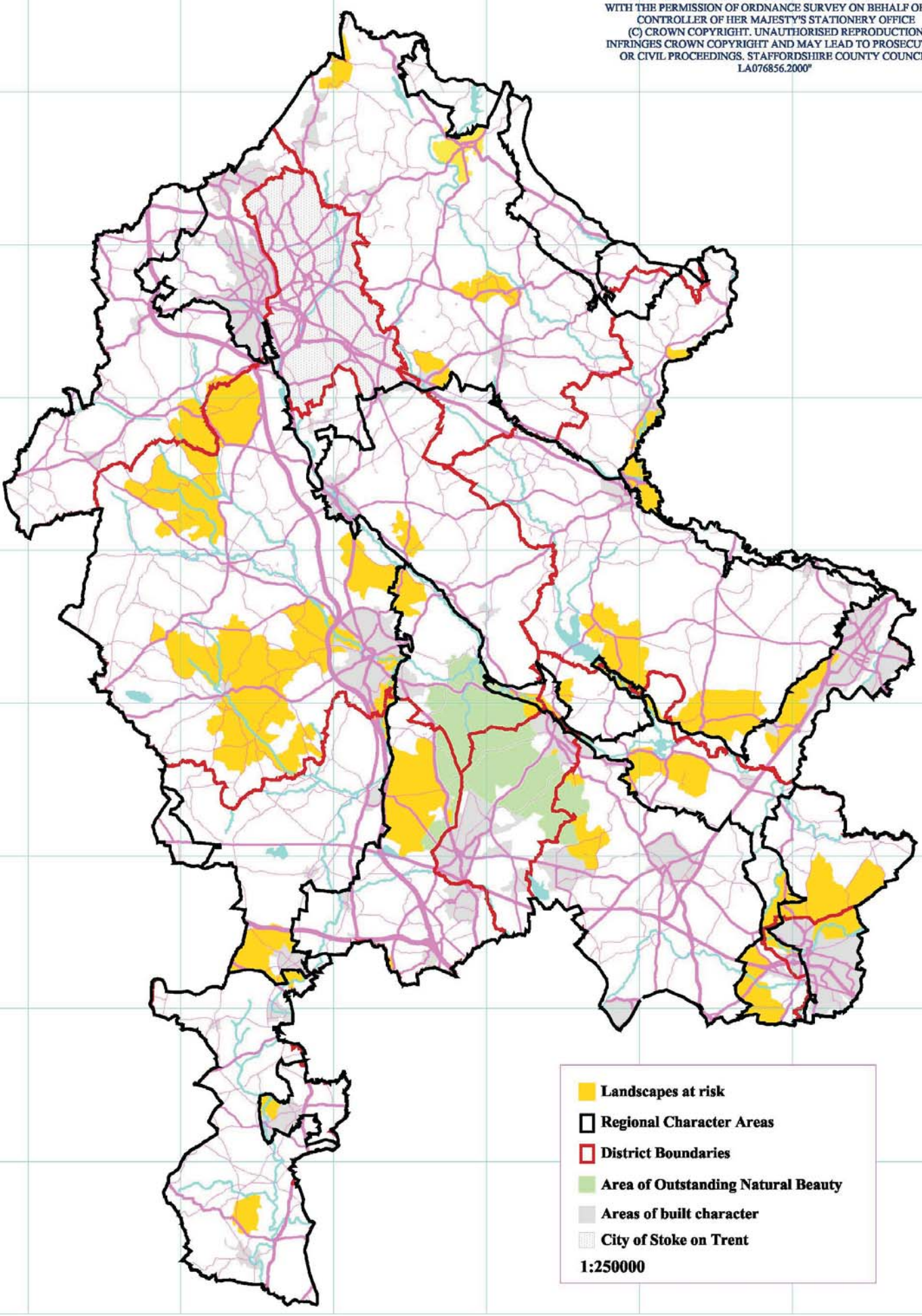
7.17 All of these areas are examples of intact lowland cultural landscapes lacking dramatic or prominent landform but having a particular strength of character. Their recognition is a reflection of a general trend in the appreciation of landscapes. The process of landscape designation at the national level started with the recognition of the drama of the Peak Park, the Lake District and Snowdonia and has only recently recognised the importance of the cultural landscapes of the New Forest and the Norfolk Broads. This has been mirrored until recently in more local evaluations, which tended to undervalue the more quietly-stated character of the farmed lowlands. The emphasis on local distinctiveness and strength of character, promoted through the *Character of England* project, should help to redress the balance.

7.18 The Hanchurch Hills, noted at 7.16 above, are an example of a type of landscape that is more or less intact in terms of the pattern of its visual elements, but which has suffered some erosion of those functional (i.e. ecological and/or cultural) elements that also contribute to landscape character and quality. This can be taken as an early warning of a landscape that is at risk of a loss of character and quality, as a loss of function (e.g. when hedgerows no longer control stock) can be expected to result in a decline in the condition of characteristic features, and their eventual loss.

7.19 It is possible to map such 'landscapes at risk' by identifying all landscape units that are above average in terms of the strength of their visual element, and selecting from that group all units that are below average in terms of the strength of their functional element. The resulting map, Map 5, should be of value in identifying priority areas for the targeting of resources aimed at conserving and enhancing the functional elements of landscapes (e.g. hedges, stone walls, buildings, woodlands and other habitat, etc.) in the interests of preventing a loss of landscape character and quality.

Map 5: Landscapes at risk of a rapid loss of character and quality

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Assessing and mapping landscape sensitivity

7.20 Landscape sensitivity is a function of the impact on a landscape of a given amount of disturbance. It could be that two landscapes emerged from the evaluation process as being of equal quality, but one of them comprised mainly heathland, and the other woodland of relatively recent origin. It is likely that a given amount of disturbance – e.g. a quarry – would have a greater impact on the heathland landscape, because it would be more likely to be visible, because non-visual impacts such as noise would be more apparent, and possibly because the impact on habitat at landscape scale would be greater. The heathland landscape therefore has a higher sensitivity than the woodland. There is, nonetheless, a strong relationship between quality and sensitivity, because one of the impacts of disturbance is the removal of landscape features. If a given area is rich in characteristic features it will tend to be of high landscape quality, and a given amount of disturbance will damage or remove a high number of those features, suggesting that the landscape is highly sensitive. In considering the impacts of disturbance it is helpful to differentiate between **visual impact** and **landscape character impact**, by which is meant the effects of the loss of landscape features.

7.21 To arrive at a measure of sensitivity for any landscape three basic questions need to be addressed, *viz:*

(i) how likely is it that the effects of a given amount of disturbance will be visible?

(ii) how likely is it that the perception of landscape quality will be adversely affected in ways other than through visual intrusion?

(iii) how likely is it that significant features or characteristics of the landscape that contribute to its quality will be lost through disturbance?

7.22 As will be argued below, these questions can be re-stated as:

(i) what is the potential for negating or minimising adverse visual impacts of disturbance through mitigation and compensation measures?

(ii) what is the potential for similarly negating or minimising adverse landscape character impacts?

7.23 It has been argued above that disturbance could have a harmful impact if either the landscape is of high quality, or if the effects of the disturbance will be highly visible. If both apply the impact will be particularly harmful. This suggests that the assessment of sensitivity could be approached in part through the relationship between the quality of a landscape and its **general visibility**, as illustrated in Figure 2 (page 31).

7.24 The general visibility of a landscape can be defined as the probability of a given feature, located at random, being visible from a given viewpoint, also located at random. It is determined in part by landform and in part by tree and woodland cover. The complex relationship between these two aspects was investigated theoretically and in the field, to arrive at a map of general visibility.

7.25 The three-way relationship between landscape quality, general visibility and the impact of disturbance is made slightly more complex by the fact that measures in mitigation of the visual impacts of disturbance will usually be adopted, and they can have their own landscape character impact. It could be, e.g., that in order to reduce

the visual impact of a development a large amount of woodland planting is required. If the planting site is of particular habitat value or contains a large number of characteristic landscape features, the planting itself could have an unacceptable landscape character impact. In general terms the lower is the landscape quality the greater are the opportunities for works in mitigation that will not themselves be damaging in terms of landscape character impact. The lower is the general visibility the easier will it be to mitigate impact without the mitigation works causing damage to landscape character. It is for this reason that the assessment of landscape sensitivity is best approached by considering the potential for negating or minimising adverse impacts through mitigation or compensation measures.

7.26 That aspect of landscape sensitivity that is concerned with visual impact can be expressed and illustrated in terms of the **potential for visual mitigation**: Figure 3 (page 31). The strength of the visual element is that aspect of landscape quality which is derived from measuring the strength of visual character and the visual condition of landscape elements: see Appendix 1. Adverse visual impacts of disturbance will be difficult to minimise in a landscape of particularly strong visual character, or in a highly visible landscape. There will be a particular difficulty where these two attributes coincide.

7.27 At its simplest the **potential for landscape character mitigation** is the inverse of landscape quality, because the higher the quality the more features of value are at risk of loss through disturbance. However, this relationship is made more complex by the fact that a further contributor to sensitivity is **landscape tranquillity**, which can also be affected by disturbance. Tranquil Areas were defined and mapped, in the mid 1990s, in a project carried out for the Council for the Protection of Rural England (CPRE) and the Countryside Commission. They are:

> … places which are sufficiently far away from the visual or noise intrusion of development or traffic to be considered unspoilt by urban influences. They are determined by distances from...various disturbing factors ...
>
> (CPRE and Countryside Commission, 1995)

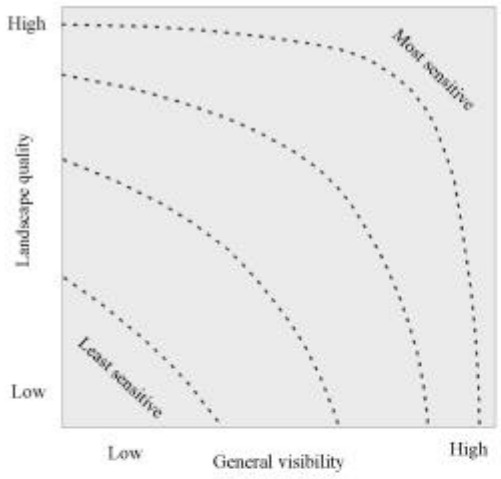


Fig 2: the general relationship between quality, visibility and sensitivity

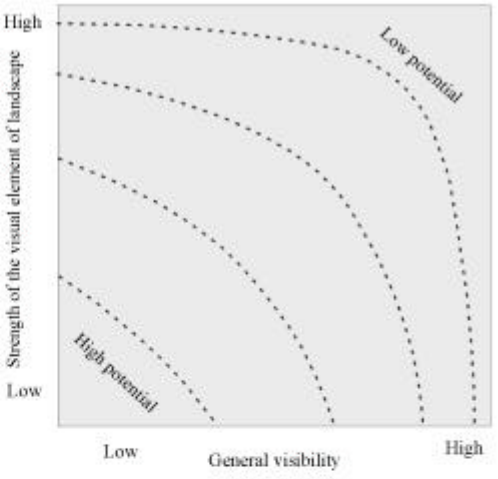


Fig 3: The potential for visual mitigation: its relationship with strength of the visual element of landscape and general visibility

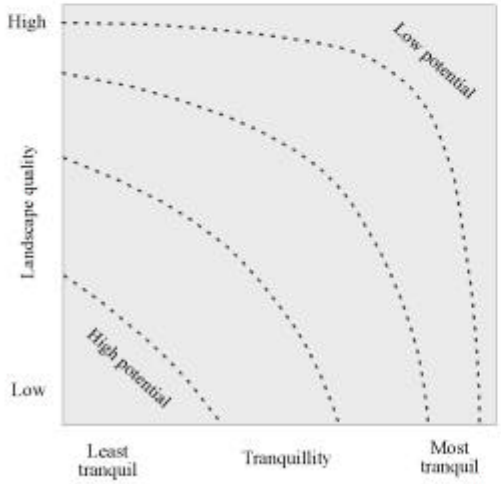


Fig 4: The potential for landscape character mitigation: its relationship with landscape quality and tranquillity

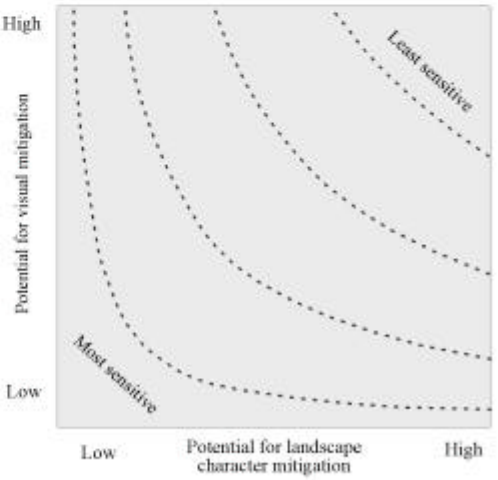


Fig 5: Landscape sensitivity: its relationship with the potential for visual mitigation and for landscape character mitigation.

7.28 The original Tranquil Areas maps were drawn at a regional level. Within those areas lower level semi-tranquil areas were shown. These could be differentiated into those classed as vulnerable, because projected growth in traffic would cause further loss of tranquillity, and less vulnerable areas, in which e.g. the major disturbance came from power lines, and is unlikely to increase significantly. For this study all LDUs were classified by their tranquillity, based on the CPRE work: the resulting map is in Appendix 1. It should be noted that within the Plan area there is no simple relationship between landscape quality and tranquillity: there are areas of poor quality that are tranquil by virtue of their relative remoteness, and areas of high quality that are close to urban areas and therefore not tranquil.

7.29 Where landscape quality is low the potential for successful landscape character mitigation will be high, because there are fewer features of value at risk. If the area is not tranquil the works in mitigation could increase its tranquillity (or reduce its sensitivity): e.g. woodland planting could help to reduce noise levels generally. Where landscape quality is high, or if the area is tranquil, the potential for successful landscape character mitigation is limited: there are more features of value at risk, and the non-visual adverse impacts will be more evident. Where these two attributes coincide the potential is at its lowest. The general relationship between tranquillity, quality and the potential for landscape character mitigation is therefore as illustrated in Figure 4 (page 31).

7.30 Maps showing the differing potential for visual and landscape character mitigation are in Appendix 1. To obtain a general measure of landscape sensitivity it is necessary to consider the interaction between these attributes. If the measure of either one is low the landscape will tend to be sensitive to the impacts of disturbance, but if both are low it will be highly sensitive. This is illustrated in Figure 5 (page 31).

7.31 The combination of information on landscape quality and sensitivity, with some adjustment for predictable future change (see paragraph 2.3), results in Map 1 and Appendix 1, which has been discussed in Section 2, above.

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GLOSSARY OF TERMS

Land description unit (LDU) – The largest homogeneous land unit sharing a similar pattern of physical, biological and historical components. They can be used as mapping units across disciplinary boundaries encompassing ecology, archaeology and landscape, and, as such, they are the basic units on which assessment, evaluation and decision-making are based.

Landscape character type – A generic term for the representation of a particular combination of landscape elements and land uses that create a particular character. One example could be "riparian alluvial lowland farmlands", representing all examples of farmed landscapes on the alluvial soils associated with the floodplains of lowland rivers. Such a landscape character type could be found within many different Regional Character Areas.

Landscape quality – A function of the clarity with which the distinctive character of a landscape type is expressed in a given area, and of the condition of the landscape elements that contribute to that character.

Landscape sensitivity – A general indication of the extent to which a landscape can accommodate change without unacceptable detrimental effects on its character.

Regional character area – A discrete geographical area, the boundaries of which enclose landscapes of a broadly similar type. The *Character of England* Map, produced jointly by the former Countryside Commission and English Nature, divides England into 159 such areas.