

Urban areas were not surveyed but within the rural areas the contribution of the villages was included. The field survey was initially carried out between November 2005 and February 2006 and later supplemented by site visits between January- March 2007. The survey team consisted of a team of two and field survey record sheets were used to record data in a systematic manner. A sample of the two-page pro forma used is included as Appendix B. Additional notes and photographic records supplemented the use of forms

### **Literature Review**

- 3.24 In parallel with the desk study and fieldwork a literature review was carried out. This provided background information and informed the process of defining character areas. A list of References is provided in Appendix H.

### **The characterisation process**

- 3.25 Following on from the desk study and field work coherent Character Areas were identified. This process usually involves aggregating LDUs to identify both Landscape Character Types and Landscape Character Areas. The former is a generic term and usually a particular type of landscape, which can occur in many different places while the latter refer to geographically discrete areas. The reason for making a distinction between Landscape Character Types and Character Areas is largely a practical one. Landscape Character Types are very much a management tool and at this level countryside planning and land management activity at a county and regional scale can be co-coordinated. On this basis it is likely that management methods will be similar within the same landscape character types.
- 3.26 For most people, however, landscape is strongly associated with place and Character Areas can provide a more appropriate vehicle for presenting countryside information to a public audience. These Character Areas are at a scale, which equate with broader perceptions of landscapes and each has associated aims and priorities appropriate to its scale. In this study the seven Character Areas form the main units of the landscape, however in order to provide more specific guidelines to individual areas that will help to reinforce and enhance the local diversity of the landscapes in the authority a number of 'sub areas' have also been defined within the seven overall character areas. A schedule of the Landscape Character Types, Sub Types, Character Areas and Sub Areas is found in Appendix E and illustrated by Drawings 04-06. Aspects of each sub area is also reflected in the detailed character areas statements in Section 4.

### **Boundaries**

- 3.27 The definition of boundaries between character areas and sub areas has been largely based on the LDUs derived in the desk study and supplemented with field testing. Therefore the lines are defined primarily on the basis of geology, soils, and landform and to a lesser extent may reflect breaks in cultural pattern and landcover. Therefore in many locations the boundaries do not follow fixed features on the ground, such as the edge of woodland, field boundary, road or track. It is possible to adjust character boundaries

to find the 'line of best fit' to a fixed feature but these are often unsatisfactory and can imply a level of detail that is in excess of the assessment. In parallel it should be understood that although the drawing of boundary lines on a plan is an inevitable part of the process, this does not always mean that landscape character is dramatically different to either side of each and every line. Landscape character can suddenly change, e.g. at the interface of an historic parkland, at the foot of a steep scarp slope or at a settlement edge, but generally there is often a more gradual transition. In such cases the boundary line marks more a watershed of character, where the balance of the defining elements has shifted from one landscape type to another. As a result when considering a site near to a boundary it will be necessary to consider the character and guidelines for both areas to ensure the specifics of the site are correctly and understood.

### **Stakeholder involvement**

3.28 An important part of the process of landscape character assessment is the involvement of local stakeholders. The previous Local Landscape Designations Study (2006) identified that there was a clear need to carry out wider Stakeholder contact than had been previously undertaken for the 1999 study. This stage was important to add validity to the Landscape Character Assessment and provide a critical and informed review of the emerging work. This input was carried out through various means as follows:

- Local Stakeholder Events. Representatives from the local community, including Borough, Town and Parish Councillors were invited to one of two workshops. The first was held in Olney on 15<sup>th</sup> January to cover the north of the authority and the second in Bow Brickhill on the 26<sup>th</sup> January to cover the south of the authority. The structure of the workshop included two presentations followed by small workshop groups.
- Professional Stakeholder Event. This was held on 21<sup>st</sup> February and followed a similar structure to the local Stakeholder Meeting. The meeting was attended by a range of officers including representatives from adjacent authorities and covering diverse interests such as planning, landscape, ecology, historic environment and waterways.

A list of the invitees and attendees for the workshops is provided at Appendix D. At the meeting attendees received a presentation on the planning background, the principles of Landscape Character Assessment and details of the process underway within Milton Keynes. Attendees were then given the opportunity to discuss their views and to make suggestions on the draft character areas and key characteristics within smaller groups. Questionnaires were also provided both in electronic and hard copy form to enable fuller more detailed contributions from the stakeholders and details of the forms are provide in Appendix C. All the returns and comments were carefully considered and where appropriate include into the Character Area Statements.

- **Wider Community Questionnaire**

- 3.29 In addition a number of individual interviews were held with key stakeholders. These included officers of the Borough Council and County Council. Following the production of the draft report a number of key stakeholders were again consulted on the full text for the character areas.

### *Landscape Value*

- 3.30 By combining the responses from all above groups a measure of landscape value can be derived. **To be expanded.**

### **Report Format**

- 3.31 Following the receipt of inputs from the stakeholders and continuing literature review, the landscape character descriptions were developed into a final form. A consistent pattern was used to describe each of the character areas that emerged as follows:

#### **Summary Page**

- Location- brief geographical description and map of the area
- Landscape character - summary statement of the area and any sub areas
- Key characteristics - main elements defining the character
- Distinctive features - individual features of note

#### **Assessment Page**

##### Physical influences

- Geology and soils
- Topography - including degree of slope and altitude range
- Hydrology
- Land cover and land use
- Biodiversity

##### Historic and cultural influences

- Field pattern and field size
- Transport pattern.
- Settlement and built form.
- Other sources of area specific information

#### **Evaluation Page**

- Visual and sensory perception
- Recreational Opportunities

- Landscape Strategy matrices and text – for each sub area
- Landscape Strategy for each sub area to inform the guidelines
- Overview of sensitivity
- Landscape and ecological designations e.g. Registered Parks and Gardens, SSSIs

#### **Guidelines Page**

- Countryside Management – generally and specifically for each sub area
- Development Guidelines – general. NB These would need to be subsequently extended to cover all c types of development

- 3.32 As part of the Evaluation Page of the Character Areas, a 'Condition and Strength of Character Matrix' has been included for each sub area. In order to assess any landscape's potential ability to adapt to change without losing its intrinsic character, it is necessary to analyse the functional integrity or condition of the landscape and balance this against the strength of character as demonstrated by the more permanent or robust elements of the landscape. Landscape condition is determined from an evaluation of the relative state (poor/moderate/good) of elements within the landscape, which are subject to change, such as survival of hedgerows, extent and impact of built development. Strength of character is determined from an evaluation of the impact of relatively stable factors, such as landform and land cover, the apparent continuity of an historic pattern, the degree of visibility of and within the area and its rarity.
- 3.33 Seven factors were considered for both condition and strength of character for each area (see evaluation matrix for any area). Each was evaluated in the field and an entry made on the survey sheet against a three-point scale. Values for the factors on each axis were then aggregated and a majority total applied. The resulting intersection on the matrix was used to determine the general strategy for each Landscape Character Area.
- 3.34 This evaluation via the matrix enables a general landscape strategy to be determined, such as, for example 'conserve and strengthen', where a landscape area is in good condition but only moderate robustness, or 'improve and reinforce' where a landscape area is in moderate condition and of weak robustness, see Fig 5. below. Once this primary guideline was established, specific guidelines were developed to address issues within the particular area, with a view to improving both condition and strength of character as necessary to reinforce distinctiveness.

<b>Condition</b>	<b>Good</b>	<b>Strengthen and reinforce</b>	<b>Conserve and strengthen</b>	<b>Safeguard and manage</b>
	<b>Moderate</b>	<b>Improve and reinforce</b>	<b>Improve and conserve</b>	<b>Conserve and restore</b>
	<b>Poor</b>	<b>Reconstruct</b>	<b>Improve and restore</b>	<b>Restore condition to maintain character</b>
		<b>Weak</b>	<b>Moderate</b>	<b>Strong</b>

**Strength of Character**

Fig 5 - Landscape Strategy Matrix

3.35 The Landscape Character Areas are identified on a series of maps both as hard copy plans and digitally using GIS (ArcView 9.1). The text for the report was also provided as an Access database, to enable the GIS map data to be made interactive with the text. The data described above was provided to the client in both hard copy and on CD-ROM.

**Landscape Quality**

3.36 A measure of Landscape Quality can be derived from the table above. Each colour within the table at figure 5 represents a level of landscape quality, with the bottom left hand corner, 'Reconstruct', being of the lowest quality. The top right hand corner, 'Safeguard and Manage', represents the highest quality. The full range of measures of landscape quality is set out below, with the results for Milton Keynes illustrated by Drawing 07.

	High
	Moderate/High
	Moderate
	Moderate/Poor
	Poor

**Sensitivity**

3.37 The LDU is also a scale at which sensitivity can be derived and considered. The approach used at Level 2 is based on the method used by The Living Landscapes for the Countryside Agency in Shropshire to map landscape sensitivity. It is important to clarify the difference between sensitivity and capacity. Sensitivity

has now become accepted as a landscape-related concept – i.e. it is related to the nature of the landscape, rather than to any proposed agent of change, and therefore does not vary for different proposed changes. The approach uses the physical and cultural attributes of each LDU to derive maps of inherent landscape sensitivity that take into account differences in the ecological, cultural and visual characteristics of the unit. The technique is as objective as possible, transparent, and provides a consistent assessment and evaluation across the LDUs. In contrast 'capacity' is more related to a particular to the type and quantity of change. Thus, while a landscape may be highly sensitive to change, it may have a moderate capacity to accommodate, for example, bio-fuel planting, but only a low capacity to accommodate housing development. For the purpose of this Landscape Character Assessment the analysis of overall sensitivity is provided. The landscape capacity within the landscape character areas as a whole is not considered in the absence of specific proposals for development. Furthermore to derive capacity an assessment of landscape value and consensus is required.

### **Sensitivity - Ecological Sensitivity**

3.38 The oldest (and by implication most sensitive) landscapes are those that still survive in a semi-natural state (e.g. moorland). Most landscapes in the lowlands, however, have been settled and improved for agricultural production and as a result, any surviving semi-natural habitat is almost invariably associated with the cultural pattern (i.e. woodlands, field boundaries and other 'man made' features). Where such patches still survive they will increase overall sensitivity. Analysis of patch survival is largely a predictive exercise which looks at the current pattern of land use within the context of 'productive' and more 'marginal' ground types - the assumption being that a settled arable landscape associated with good (brown/gleyed) soils is likely to have fewer patches of semi-natural habitat than a pastoral landscape associated with marginal (wetland, heathland, chalk & limestone or moorland) soils. The desk based sensitivity evaluation establishes where the landscape character implies that there will be ecologically significant habitats, likely to be at risk from impact. It does not refer to designations (e.g. SSSI's etc.) as these are clearly not landscape based but deal with the site specifics and as such offer protection and/or information at that scale. However there should be some overall correlation and for this reason the designated sites are also included on the relevant drawing 07.

3.39 The analysis makes three main assumptions:

- agriculturally marginal land is more likely to be of ecological interest than good agricultural land
- pastoral land is more likely to support ecological interest as a result of less intensive use than arable
- landscapes with woodland of ancient character are the more ecologically valuable than other woodland character, and of these those characterised by fragmented woods and hedgerow remnants are more sensitive than larger woodland blocks (largely due to lack of protection/awareness).

3.40 The relationship between these elements helps to define the relative likelihood of ecological value, and therefore ecological sensitivity to impacts. The matrix below illustrates how these components have been analysed.

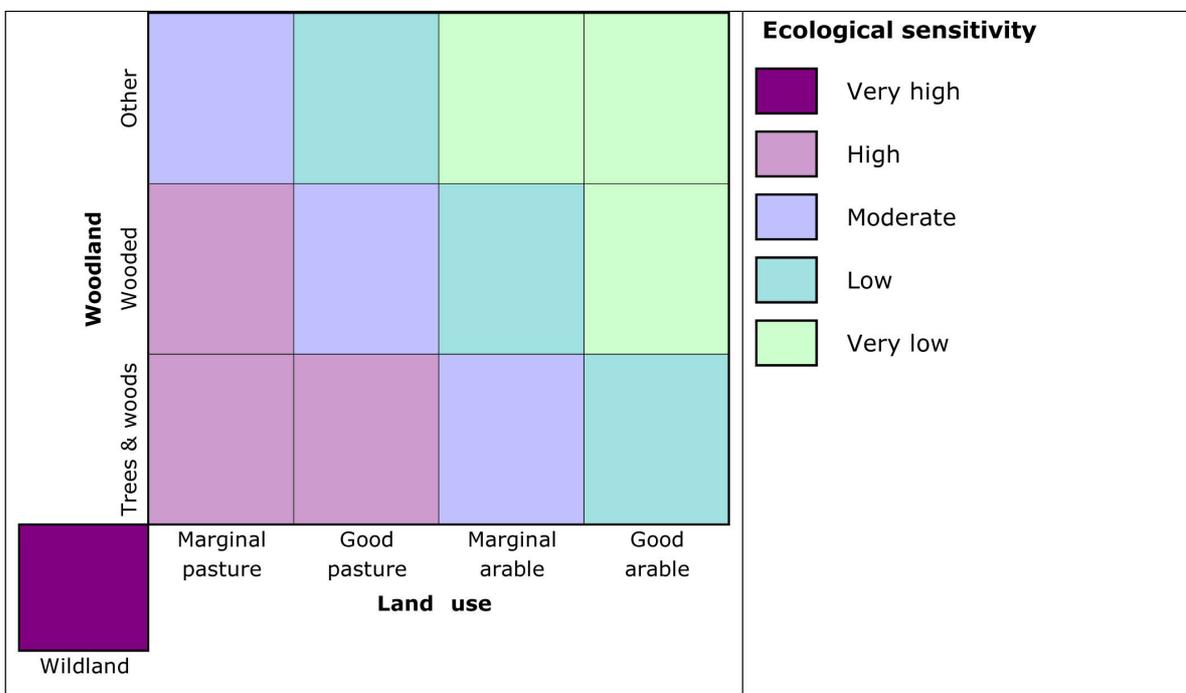


Fig 6 – Ecological Sensitivity Matrix

NB. The woodland category 'other' includes pastoral or arable landscapes characterised by thinly scattered/groups of trees; 'wildland' refers to semi-natural landscapes, typically associated with marginal, usually unenclosed mountain, lowland heath or coastal dune/marshland.

**Sensitivity - Cultural Sensitivity**

3.41 Cultural sensitivity largely reflects the relative time depth (or continuity) of a landscape, and the degree to which its characteristics are exhibited in the landscape (consistency). A similar approach is adopted as for ecological sensitivity, based on a clear conceptual framework based on matrices and drawing on consistent, robust data.

3.42 The measure of landscape continuity is derived by examining the scale and age of the landscape scale (small at the bottom to large at the top) - the assumption being that small scale agricultural landscapes tend to be more sensitive to change than their larger scale counterparts. On the horizontal axis the attributes are ranked by landcover pattern (pastoral landscapes with ancient woods on the left to arable landscapes with secondary tree cover on the right) - the assumption being that heritage (natural and

cultural) features representing visible relics of an older pattern, are more likely to have survived in pastoral landscapes.

The continuity analysis has two main assumptions:

- smaller scale, more organic landscapes are an indication of age, and therefore likely to be of higher cultural interest and sensitivity
- organic landscapes are more culturally sensitive than planned as their time depth and very nature implies nonrecreatability.

3.43 Farm type and tree cover are particularly influential in controlling the consistency of the cultural pattern at this level. Settlement pattern tends to vary at a much broader scale, whilst land use is more suited as an indicator of condition. Relatively good baseline digital data for both farm type and tree cover is also available, which makes it possible to rigorously define each of the different farm/tree cover types that underpin the LDU analysis. Thus an 'ancient wooded' character will be stronger in an LDU where there is widespread woodland cover that is consistently ancient (as defined in the Ancient Woodland Inventory) than in another LDU where the woodland cover is localised and/or comprises a mixture of ancient woods and more recent plantations. The same applies to farm type. The most distinctive agricultural landscapes are those dominated by small owner occupied farms on the one hand and those characterised by large estates on the other. LDUs that are wholly one or the other will have a strongly unified character.

3.44 The relationship between continuity and consistency indicates the likelihood of the landscape providing elements of cultural value, and therefore cultural sensitivity to change. The continuity matrix shows a distinct 'time depth' continuum ranging from the older unsettled and small scale, ancient wooded landscapes in the bottom left hand corner to the more recent larger scale 'planned' landscapes at the top right. The slight subdivisions (e.g. in medium scale/pastoral landscapes) into 'Moderate' and 'Low' reflect where landscapes approach the larger end of the medium scale, and the continuity is lower.

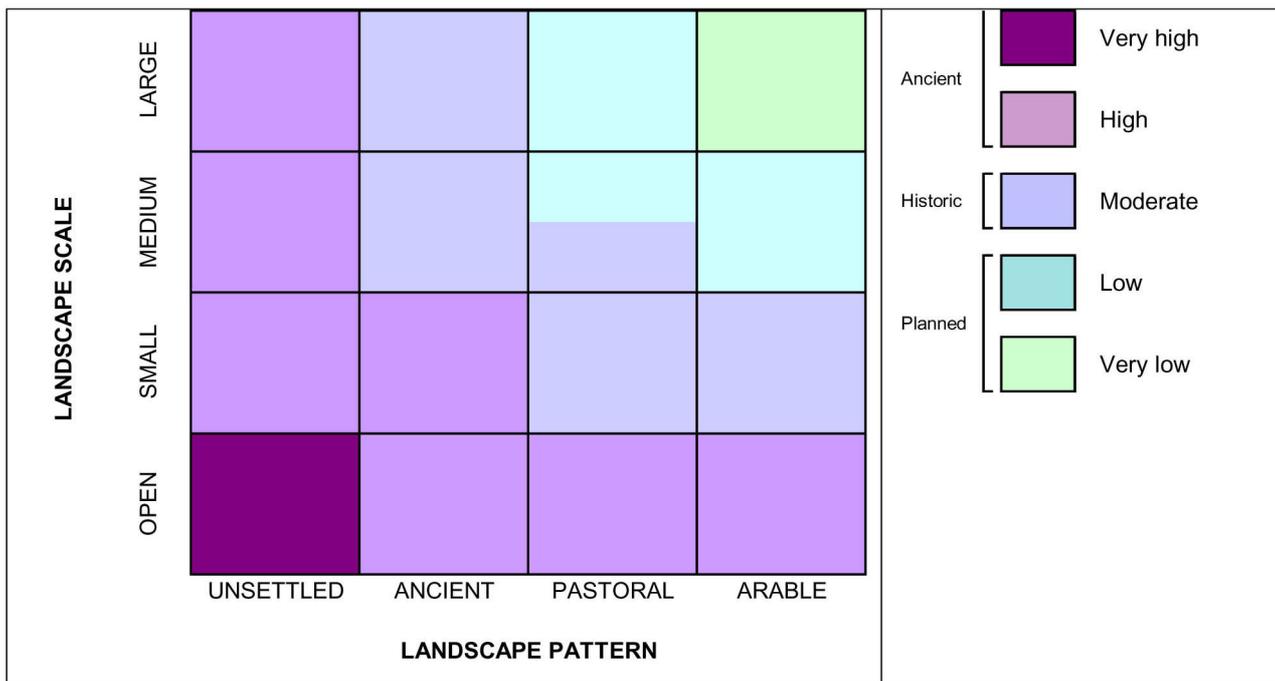


Fig 7 – Cultural Continuity Matrix

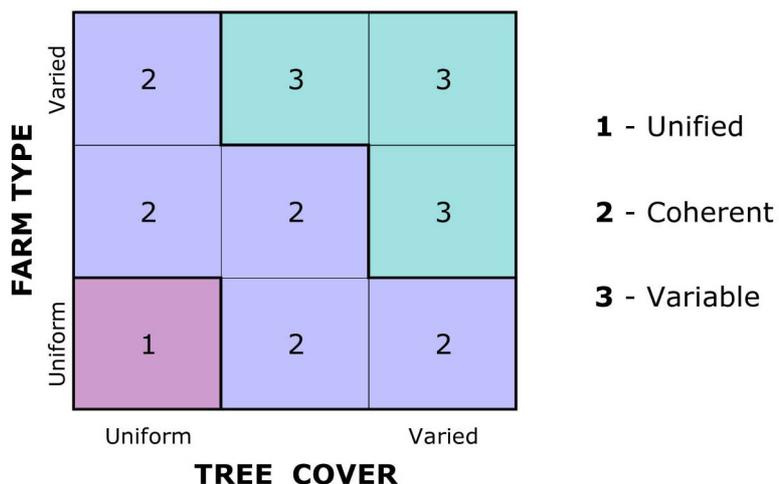


Fig 8 – Cultural Consistency Matrix

Consistency is a measure of the uniformity of pattern for farm type and tree cover for each LDU. This is used to derive an indication of consistency from 'unified' to 'variable'.

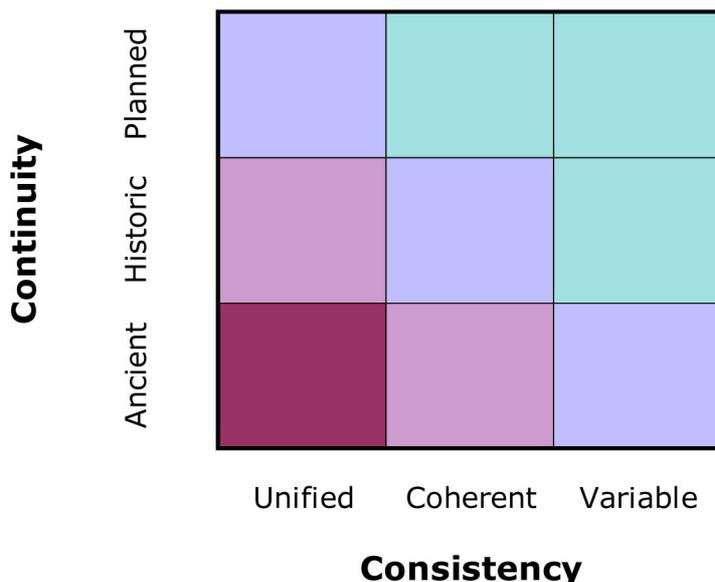


Fig 9 – Cultural Sensitivity Matrix

3.45 The combination of the continuity and consistency values in the matrix above provides a measure of the sensitivity of each LDU. The landscapes that are most sensitive to change are those that occur in the bottom left hand corner (i.e. those that are considered to be 'ancient' and/or strongly unified) whilst those that are variable in character and/or more recent in origin are likely to be less sensitive.

**Sensitivity - Visual Sensitivity**

3.46 Visual sensitivity or 'visibility' is the third component of landscape sensitivity, and is a measure of the degree to which change is likely to cause a visual impact within a particular landscape. A visibility measure can be defined, as outlined in Topic Paper 6, as "a function particularly of the landform of a particular type of landscape and of the presence of potentially screening land cover, especially trees and woodland": thus, an upland landscape with little tree cover would have a high visibility score whereas a well-wooded lowland landscape would have a low score. The matrix below illustrates these relationships and how they affect visual sensitivity.

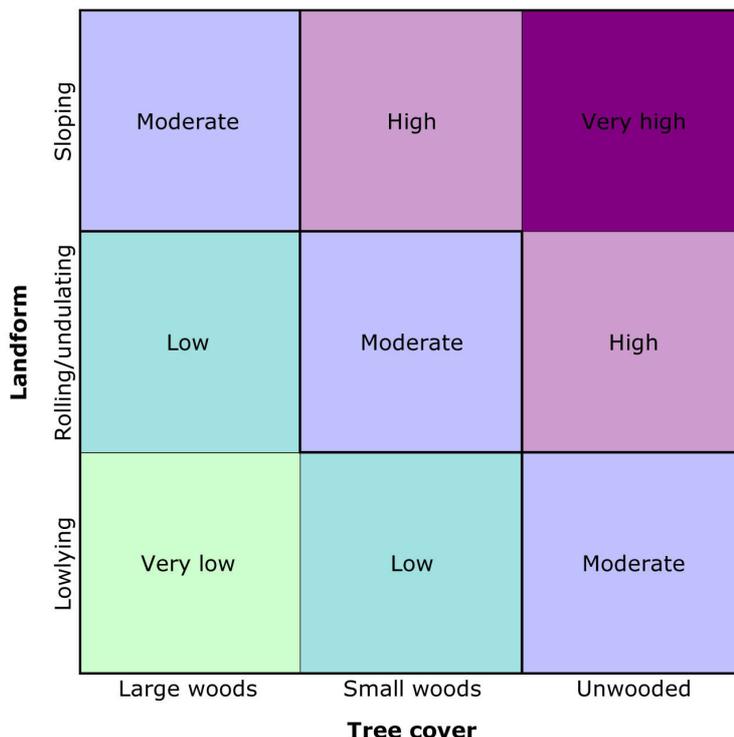


Fig 10 – Visual Sensitivity Matrix

**Sensitivity - Tranquillity**

3.47 The final component of landscape sensitivity in this case is tranquillity. Measuring tranquillity can be highly subjective, so for Milton Keynes an approach was followed that was first introduced by the CPRE and further developed by Staffordshire County Council. The approach examines factors that might be considered to detract from a sense of tranquillity. At this scale traffic and urban/industrial noise are the primary factors to consider. Trains and planes have not been considered as they are of a more intermittent nature and it would be particularly difficult to map all the possible flight paths of planes in the area.

3.48 Buffers were created for each of the potential sources of intrusion, using the following distances:

- Motorways - 1.5km
- A Roads - 0.5km
- B Roads - 0.25km
- Milton Keynes Urban Areas - 1.5km
- Olney - 1 km

The proportion of each LDU that is outside this buffered zone proves the basis for the judgment of tranquillity shown below.

- 0 – 19 Very low
- 20 – 39 Low
- 40 – 59 Moderate
- 60 – 79 High
- 80 – 100 Very high

**Overall Sensitivity**

3.49 A measure of overall sensitivity is difficult to derive since the four elements of landscape sensitivity cannot be satisfactorily aggregated. Each aspect of sensitivity will vary in importance between character types and areas and there will also be different perceptions between people as to the relative importance of each measure. Using a simple or even weighted aggregation could lead to potentially misleading conclusions and for this reason a combined measure is not provided within this study.