

## APPENDIX 7.1: LANDSCAPE AND VISUAL IMPACT ASSESSMENT METHODOLOGY

### 1.0 Introduction

1.1 The Assessment aims to establish the following:

- a clear understanding of the site and its setting in respect of landscape character and visual amenity;
- an understanding of the proposed development in terms of how this would relate to landscape character and visual amenity;
- an identification of all potential direct and indirect effects of the proposed development upon the landscape;
- an identification of effects on visual receptors;
- those mitigation measures necessary to reduce/eliminate any potential adverse effect on the landscape or visual amenity arising as a result of the proposed development; and
- a conclusion as to the residual effects of the proposed development.

1.2 The process follows a standard approach, namely:

- the establishment of the baseline conditions, i.e. the character, quality, value and relative sensitivity of the landscape, and the type and relative sensitivity of visual receptors;
- the sensitivity to change of the landscape to the proposed development;
- the prediction of the magnitude of impact that the proposed development would bring, allowing for mitigation measures, upon the landscape and upon visual receptors; and
- an assessment of the significance of effect that would occur, by considering the predicted magnitude of change together with the sensitivity of the landscape or sensitivity of visual receptor respectively.

1.3 As stated within the main text, the methodology for Landscape and Visual Assessment is based upon the *Guidelines for Landscape and Visual Impact Assessment* (The Landscape Institute and Institute of Environmental Assessment, 1<sup>st</sup> Edition, 1995 & 2<sup>nd</sup> Edition, 2002), often referred to as “*GLVIA*”.

1.4 A further document, *Landscape Character Assessment: Guidance for England and Scotland* (Scottish Natural Heritage and The Countryside Agency 2002) deals with

landscape character assessment only and references *GLVIA* as the appropriate guidance to be used for landscape and visual impact assessment when carried out as part of to the Environmental Impact Assessment process.

- 1.5 Landscape and visual matters are separate, although closely related and interlinked issues, and are dealt with as such in this report. The methodologies for assessing both are outlined separately below.

## 2.0 Landscape Assessment

- 2.1 The landscape assessment considers the potential effects of the proposed development on the landscape as an environmental resource. Physical change to the landscape may also result in changes to the distinctive character of that landscape and other surrounding landscapes and how they are perceived.
- 2.2 The landscape baseline for the assessment is established by both desk-based and field-based surveys in order to identify, describe and classify the physical and perceived aspects of the landscape within the defined study area. An understanding can then be gained of the individual elements, features and characteristics of the landscape and the way that these interact and combine to form distinct character areas.
- 2.3 This then allows an assessment to be made of the effects of a proposed development upon these landscape character areas, both in terms of actual physical change and change in character.

### ***Landscape Fabric***

- 2.4 The landscape fabric can be described as the physical elements and combinations of these elements that make up the landscape and which may be affected by the proposed development.
- 2.5 The relative **sensitivity** of the landscape fabric within each landscape character area depends upon the scarcity of its constituent elements and the ease with which these can be replaced. A five level system of High, Medium to High, Medium, Low to Medium and Low sensitivity is employed. The following definitions have been applied:

- ***High***

*Examples of landscape fabric that could be described as unique; or are nationally scarce features or elements having particularly distinctive characteristics; or mature vegetation with provenance. For example, ancient woodland or feature parkland trees, national trails or cycle routes.*

- ***Medium to High***

*Examples of landscape fabric that would be defined as having high sensitivity could be artefacts (e.g. dry stone walls) that are scarce at regional level; or are locally distinctive; or mature vegetation that is in good condition; or regionally important footpaths or rights of way.*

- ***Medium***

*Examples of landscape fabric that would be defined as having medium sensitivity could include artefacts that are locally distinctive but commonplace; or mature vegetation that is in moderate or poor condition or is readily replicated; or locally important footpaths etc.*

- **Low to Medium**

*Examples of landscape fabric that might be defined as having low sensitivity would include artefacts that are regionally or nationally ubiquitous and do not contribute to local distinctiveness; or poorly maintained vegetation (e.g. gappy hedgerows).*

- **Low**

*Examples of landscape fabric that might be considered to detract from landscape character such as obtrusive man-made artefacts (e.g. power lines, large areas of hard-standing etc).*

### **Landscape Character**

2.3 Landscape character classification is a process of subdividing the landscape into distinct character areas with similar or shared characteristics, distinguishing them from other character areas that have different shared characteristics. Once identified, these character areas can be described in terms of their quality and value, which can help to provide understanding of the sensitivity to change of a particular landscape character area.

2.6 A system of classification is required to identify relative levels of quality and value. Landscape **quality** (or **condition**) refers to the physical condition and state of repair of the landscape, and its intactness. Landscape **value** refers to the importance of the landscape to society, which may be due to a range of factors including its scenic beauty, cultural associations and tranquil or wild feel. A landscape of low quality may not necessarily be of low value.

2.7 A five level system of Exceptional/Very High, High, Medium, Low and Poor/Very Low has again been employed to describe both quality and value. The following definitions have been applied:

- **Exceptional/Very High**

*Areas of very strong positive character that are highly valued by virtue of their scenic quality. The quality and value of such landscapes is often recognised through protective designations such as National Parks or Areas of Outstanding Natural Beauty (AONBs);*

- **High**

*Areas that exhibit a positive character with valued features that combine to give an experience of unity, richness and harmony. These are landscapes that may be considered to be of particular importance to conserve and which may be particularly sensitive to change if inappropriately dealt with;*

- **Medium**

*Areas that exhibit positive character but which may have some evidence of alteration to, degradation of, or erosion of features. Can also apply to areas whose character has been degraded but which remain well used and/or highly valued by their communities;*

- **Low**

*Areas that are relatively bland or neutral in character with few notable or valued features and/or evidence of alteration to, degradation of, or erosion of features resulting in areas of mixed character; and*

- **Poor/Very Low**

*Areas that have been subject to substantial alteration, degradation, or erosion of features resulting in generally negative character. Scope for positive enhancement frequently occurs.*

2.8 The **sensitivity to change** of a landscape character area is reflected in the degree to which that area is able to accommodate change resulting from a proposed development without adverse effects on its character. This may be influenced by a number of factors including the physical quality and perceived value of the landscape in question, general visibility (influenced by topography and vegetation etc), scale (of both the landscape and of the development), robustness of the characteristic landscape elements etc...

2.9 Landscapes vary in their capacity to accommodate different forms of development. Sensitivity to change will vary according to the type of change under consideration and as such cannot be described as part of the baseline, but is considered as part of the assessment of effects. Given the variance in sensitivity dependent on the type of change, it is difficult to provide a generic definition of how the sensitivity criteria are arrived at; instead, a scheme-specific description is provided in the main body of the assessment report. Again, a five-level system of High, Medium to High, Medium, Low to Medium and Low is used.

## **Landscape Impacts**

2.10 Once the landscape baseline and sensitivity to change have been established, the magnitude of change that would be experienced as a result of the proposed development can be determined. This takes into account whether change is temporary or permanent and also any mitigation measures that have been incorporated into the proposals.

2.11 The degrees of magnitude of impact upon the landscape fabric are:

- **Very Large**

*Permanent removal of, or a significant change to, the characteristics of the landscape element in question that cannot be suitably replaced, reinstated or otherwise mitigated against;*

- **Large**

*Permanent removal of, or a significant change to, the characteristics of the landscape element in question. Limited scope for replacement, reinstatement or other mitigation;*

- **Medium**

*Partial removal of, or moderate changes to the characteristics of the landscape element in question. Also applies to complete removal that can be suitably mitigated against;*

- **Small**

*Small scale changes to a landscape element or loss of/change to a small proportion of an extensive feature. Larger scale losses that can be fully mitigated against through provision of equivalent replacement features;*

- **Very Small**

*Very small scale changes to a landscape element or loss of/change to a small proportion of an extensive feature. The changes can be fully mitigated against through provision of equivalent replacement features;*

- **Negligible**

*Changes to a landscape element that would have no effect of the integrity of the element and that can be fully mitigated against through provision of equivalent replacement features.*

2.12 The degrees of magnitude of impact upon landscape character are:

- **Very Large**

*Fundamental change in the make-up and balance of landscape characteristics over an extensive area. The proposals would be a dominant feature within the landscape;*

- **Large**

*Very obvious change in the balance of landscape characteristics over an extensive area; ranging to particularly intensive change (i.e. a dominating effect) over a more limited area. The proposals would be a prominent feature in the make-up of the character area;*

- **Medium**

*Changes in an extensive area which whilst notable do not alter the balance of the landscape characteristics, ranging to moderate changes in the localised area which whilst obvious do not fundamentally change local character. The proposals would be a conspicuous feature in the make-up of the character area;*

- **Small**

*Limited change in any components of the wider landscape with modest and unremarkable changes in the localised area. The proposals would be apparent as a feature within the landscape, but nothing more;*

- **Very Small**

*Very small and unremarkable change in any components of the landscape. The proposals would be inconspicuous within the wider landscape;*

- **Negligible**

*Change, which whilst occurring would be virtually imperceptible within the wider landscape. The proposals would be evident only at a very localised level.*

2.13 Once sensitivity to change and magnitude of impact have been classified, the two are considered to produce an assessment of the significance of effect experienced by each landscape character area. Significance of effect is not absolute and can only be defined in relation to the location of receptor and nature of development. The assessment matrix used to guide the determination of significance is indicated in Figure 1 below.

2.14 It should be noted that landscape effects may be either **adverse** (negative) or **beneficial** (positive) in nature. This is a largely subjective judgement related to the individual perceptions of the assessor and is not related to significance of effect. If no material effect is experienced, this can be said to be **neutral** in nature.

2.15 The same matrix is used to guide the determination of significance of effects on the landscape fabric, using the sensitivity criteria as set out in paragraph 2.5 above.

**Figure 1: Landscape Assessment Matrix**

<b>Magnitude of Change</b>	<b>Very Large</b>	<i>Moderate</i>	<i>Moderate to Major</i>	<i>Major</i>	<i>Major to Substantial</i>	<i>Substantial</i>
	<b>Large</b>	<i>Minor to Moderate</i>	<i>Moderate</i>	<i>Moderate to Major</i>	<i>Major</i>	<i>Major to Substantial</i>
	<b>Medium</b>	<i>Minor</i>	<i>Minor to Moderate</i>	<i>Moderate</i>	<i>Moderate to Major</i>	<i>Major</i>
	<b>Small</b>	<i>Slight to Minor</i>	<i>Minor</i>	<i>Minor to Moderate</i>	<i>Moderate</i>	<i>Moderate to Major</i>
	<b>Very Small</b>	<i>Slight</i>	<i>Slight to Minor</i>	<i>Minor</i>	<i>Minor to Moderate</i>	<i>Moderate</i>
	<b>Negligible</b>	<i>Negligible</i>	<i>Negligible</i>	<i>Negligible</i>	<i>Negligible</i>	<i>Negligible</i>
	<b>No Change</b>	<i>No Material Effect</i>	<i>No Material Effect</i>	<i>No Material Effect</i>	<i>No Material Effect</i>	<i>No Material Effect</i>
		<b>Low</b>	<b>Low to Medium</b>	<b>Medium</b>	<b>Medium to High</b>	<b>High</b>
<b>Sensitivity to Change in Landscape Character/Fabric</b>						

Example: A *large* magnitude of impact on a landscape with a *low* sensitivity to change results in an effect of *minor to moderate* significance.

### 3.0 Visual Assessment

3.1 A visual impact assessment is concerned with the potential effects that may occur resulting from a proposed development upon the population likely to be affected. It assesses the change in visual amenity undergone by specific receptors that would arise from any change in the nature of views experienced.

3.2 The method of determining visual effects is ostensibly the same as landscape impacts. The sensitivity of the visual receptor is identified, as is the magnitude of the impact experienced. These are then correlated to produce a significance of effect – see Figure 2 below.

3.3 Unless otherwise stated in the main body of the assessment report, the eye height of the viewer is assumed to be 1.8m.

3.4 The relative **sensitivity** of each visual receptor is determined and classified by both the type of receptor and the nature of the view experienced from that receptor, as follows, with Medium to High and Low to Medium categories also available as appropriate to the proposals being assessed:

- **High**

*Strategic recreational footpaths, areas or rights of way; important landscape features with physical, cultural or historic attributes; principal views from residential buildings; views from beauty spots and picnic areas;*

- **Medium**

*Other footpaths; secondary or oblique views from residential buildings; drivers and passengers in vehicles engaged in tourism or journeys of a recreational nature;*

- **Low**

*Other land accessible to the public away from well trodden footpaths; views from industrial or commercial buildings or areas; drivers and passengers of vehicles engaged in commercial travel or commuting; views from primarily functional main roads; and views from trains.*

3.5 The classification of the magnitudes of visual effect are:

- **Very Large**

*Fundamental change in the character, make-up and balance of the view. The proposals would be dominant; a controlling feature within the view;*

- **Large**

*Very obvious changes in the character, make-up and balance of the view. The proposals would be a prominent and striking feature that would be unmistakable to the viewer;*

- **Medium**

*Moderate changes in the character, make-up and balance of the view. The proposals would be conspicuous to the viewer, clearly visible and form a noticeably distinct feature;*

- **Small**

*Limited changes in the character, make-up and balance of the view. The proposals would be visible, evident and apparent to the viewer without being eye-catching or well-defined;*

- **Very Small**

*Minor changes in the character, make-up and balance of the view. The proposals would be an inconspicuous, obscure and/or indistinct feature which may be missed by the viewer;*

- **Negligible**

*Virtually imperceptible change in the view. Whilst visible, the proposals would be faint, not legible and difficult for the viewer to discern.*

3.6 In considering the magnitude of visual effects, a commentary is provided to justify the reasoning for the magnitude and sensitivity criteria selected (of particular value where the Medium to High and Low to Medium categories are used). This in turn will influence the significance of effect. Such factors considered may include for example, the potential for weather conditions to restrict views, the principle aspect of the viewpoint/viewer, the proportion of any particular view affected, the potential for the development to attract the eye or to become a focal point in the view to the detriment/benefit of competing visual elements, etc...

3.7 Once sensitivity to change and magnitude of impact have been classified, the two are considered to produce an assessment of the significance of effect experienced by each visual receptor. Significance of effect is not absolute and can only be defined in relation to the location of receptor and nature of development, but is guided by the matrix indicated in Figure 2 below.

3.8 It should be noted that visual effects may be either **adverse** (negative) or **beneficial** (positive) in nature. This is a largely subjective judgement related to the individual perceptions of the assessor and is not related to significance of effect. If no material effect is experienced, this can be said to be **neutral** in nature.

<b>Figure 2: Visual Assessment Matrix</b>						
<b>Magnitude of Change</b>	<b>Very Large</b>	<i>Moderate</i>	<i>Moderate to Major</i>	<i>Major</i>	<i>Major to Substantial</i>	<i>Substantial</i>
	<b>Large</b>	<i>Minor to Moderate</i>	<i>Moderate</i>	<i>Moderate to Major</i>	<i>Major</i>	<i>Major to Substantial</i>
	<b>Medium</b>	<i>Minor</i>	<i>Minor to Moderate</i>	<i>Moderate</i>	<i>Moderate to Major</i>	<i>Major</i>
	<b>Small</b>	<i>Slight to Minor</i>	<i>Minor</i>	<i>Minor to Moderate</i>	<i>Moderate</i>	<i>Moderate to Major</i>
	<b>Very Small</b>	<i>Slight</i>	<i>Slight to Minor</i>	<i>Minor</i>	<i>Minor to Moderate</i>	<i>Moderate</i>
	<b>Negligible</b>	<i>Negligible</i>	<i>Negligible</i>	<i>Negligible</i>	<i>Negligible</i>	<i>Negligible</i>
	<b>No Change</b>	<i>No Material Effect</i>	<i>No Material Effect</i>	<i>No Material Effect</i>	<i>No Material Effect</i>	<i>No Material Effect</i>
		<b>Low</b>	<b>Low to Medium</b>	<b>Medium</b>	<b>Medium to High</b>	<b>High</b>
		<b>Sensitivity of Visual Receptor</b>				

Example: A *large* magnitude of impact on a visual receptor with a *low* sensitivity to change results in an effect of *minor to moderate* significance.