



APPENDIX 11.1: LANDSCAPE AND VISUAL IMPACT ASSESSMENT METHODOLOGY

ASSESSMENT METHODOLOGY

For the construction and operation phases, for each potentially significant effect that has been assessed, a summary of the process is as follows:

Landscape

- Baseline; including an assessment of the value of the landscape, both of character areas and features and elements;
- Assess sensitivity of landscape with reference to its capacity to accommodate change arising from the project;
- Assess magnitude of impacts on landscape; features, elements and character, with reference to; scheme design, including bridges, approach roads, cuttings and embankments, drainage, signage, lighting, scale of change, nature of change;
- Develop mitigation to reduce potential adverse effects;
- Evaluate significance of landscape effects; and
- Report residual landscape effects.

Visual

- Baseline; identification of visual receptors and their sensitivity to change;
- Assess magnitude of visual impacts with reference to scheme design, including bridges, approach roads, cuttings and embankments, drainage, signage, lighting, scale of change, nature of change;
- Develop mitigation to reduce potential adverse effects;
- Evaluate significance of visual effects; and
- Report residual visual effects for each receptor.

LANDSCAPE SENSITIVITY

The term landscape applies equally to natural, rural, urban and peri-urban areas. It concerns landscapes that might be considered outstanding as well as every day or degraded landscapes.

Landscape sensitivity is derived from the combination of a landscape's quality, value and the degree to which the particular element or characteristic can be replaced or substituted.

Landscape quality relates to the intrinsic aesthetic appeal demonstrated by a character area or feature including its condition and contribution to defining an area's 'sense of place'. A five-point scale has been adopted to assist in describing landscape quality, prior to and post development.

Table 10.1- Landscape Quality	
RATING	CRITERIA
Outstanding	Areas comprising a clear composition of valued landscape components in robust form and health, free of disruptive visual detractors and with a strong sense of place. Areas containing a strong, balanced structure with distinct features worthy of conservation.
Very Attractive	Areas primarily of valued landscape components combined in an aesthetically pleasing composition and lacking prominent disruptive visual detractors. Areas containing a strong structure with noteworthy features or elements, exhibiting a sense of place.
Good	Areas primarily of valued landscape components combined in an aesthetically pleasing composition with low levels of disruptive visual detractors, exhibiting a recognisable landscape structure.
Ordinary	Areas containing some features of landscape value but lacking a coherent and aesthetically pleasing composition with frequent detracting visual elements, exhibiting a distinguishable structure often concealed by mixed land uses or development. Such areas would be commonplace at the local level and would generally be undesignated, offering scope for improvement.
Poor	Areas lacking valued landscape components or comprising degraded, disturbed or derelict features, lacking any aesthetically pleasing composition with a dominance of visually detracting elements, exhibiting mixed land uses which conceal the baseline structure. Such areas would generally be restricted to the local level and identified as requiring recovery.

Landscape Value

Landscape value relates to areas of particular scenic quality or those displaying important historic and cultural associations. Landscape value is frequently addressed by reference to international, national, regional and local designations. An absence of a formal designation does not, however, determine that an area is necessarily of low value; factors such as accessibility and local scarcity can render areas of unremarkable quality highly valuable as a local resource.

Capacity to Accommodate Change

Although there is common ground between the aspects of sensitivity and capacity, the relationship between the degree of sensitivity and capacity are not always direct. A highly sensitive area should not, by definition, infer that it has little or no capacity to accommodate future change. Similarly, an area considered to have low sensitivity to change does not automatically have a higher capacity to accommodate development.

Assessment of landscape sensitivity is a qualitative assessment, in accordance with GLVIA 3 guidance.

SIGNIFICANCE CRITERIA

The assessment of potential effects as a result of the Proposed Scheme has considered both the construction and operational phases. The construction phase includes enabling works, demolition, earthworks and construction activities as set out in Chapter 3: Description of the Proposed Scheme.



The significance level attributed to each effect has been assessed based on the magnitude of change due to the Proposed Scheme and the sensitivity of the affected receptor, as well as a number of other factors that are outlined in more detail in Chapter 5: Approach to EIA. The sensitivity of the affected receptor is assessed on a scale of high, medium, low and negligible, and the magnitude of change is assessed on a scale of large, medium, small and negligible (as shown in Chapter 5: Approach to EIA).

SENSITIVITY

Receptor sensitivity, magnitude of impact and evaluation of the significance of landscape and visual effects has been categorised using typical criteria tables from IAN 135/10 (Refer to Tables 7.1 to 7.5).

Table 10.2- Landscape and Visual Sensitivity		
RATING	LANDSCAPE - CRITERIA	VISUAL - CRITERIA
High	<p>Landscapes which by nature of their character would be unable to accommodate change of the type proposed. Typically, these would be:</p> <p>Of high quality (very attractive or outstanding) with distinctive elements and features making a positive contribution to character and sense of place.</p> <p>Likely to be designated, but the aspects which underpin such value may also be present outside designated areas, especially at the local scale.</p> <p>Areas of special recognised value through use, perception or historic and cultural associations.</p> <p>Likely to contain features and elements that are rare and could not be replaced.</p>	<p>Residential properties.</p> <p>Users of Public Rights of Way or other recreational trails (e.g. National Trails, footpaths, bridleways etc.).</p> <p>Users of recreational facilities where the purpose of that recreation is enjoyment of the countryside (e.g. Country Parks, National Trust or other access land etc.).</p>
Moderate	<p>Landscapes which by nature of their character would be able to partly accommodate change of the type proposed. Typically, these would be;</p> <p>Comprised of commonplace elements and features creating generally unremarkable character but with some sense of place (good quality).</p> <p>Locally designated, or their value may be expressed through non-statutory local publications</p>	<p>Outdoor workers.</p> <p>Users of scenic roads, railways or waterways or users of designated tourist routes.</p> <p>Schools and other institutional buildings, and their outdoor areas</p> <p>Users of recreational facilities or businesses where the purpose of that recreation is related to the view.</p>

	<p>Containing some features of value through use, perception or historic and cultural associations</p> <p>Likely to contain some features and elements that could not be replaced.</p>	
Low	<p>Landscapes which by nature of their character would be able to accommodate change of the type proposed. Typically, these would be;</p> <p>Comprised of some features and elements that are discordant, derelict or in decline, resulting in indistinct character with little or no sense of place (ordinary or poor quality).</p> <p>Not designated.</p> <p>Containing few, if any, features of value through use, perception or historic and cultural associations.</p> <p>Likely to contain few, if any, features and elements that could not be replaced.</p>	<p>Indoor workers.</p> <p>Users of main roads (e.g. trunk roads) or passengers in public transport on main arterial routes.</p> <p>Users of recreational facilities where the purpose of that recreation is not related to the view (e.g. sports facilities).</p>

The magnitude of impact is determined through a process of quantification, such as loss of and severance or modification to key landscape components (woodland, hedgerows, boundaries landform, and culturally significant structures) and evaluation of the extent to which the scheme will emerge as a new component in the landscape setting or change the balance between components that currently constitute baseline character. Magnitude of impact can be either Adverse or Beneficial. Definitions associated with the magnitude of impact are listed below within Table 10.3.

MAGNITUDE OF IMPACT

Table 10.3- Magnitude of Landscape and Visual Impact and Typical Descriptors		
RATING	LANDSCAPE - CRITERIA	VISUAL – CRITERIA
Major	<p>Adverse - Total loss or large-scale damage to existing character or distinctive features and elements, and/or the addition of new but uncharacteristic conspicuous features and elements, or</p> <p>Beneficial - Large scale improvement of character by the restoration of features and elements, and/or the removal of uncharacteristic and conspicuous features and elements, or by the addition of new distinctive features.</p>	The scheme, or a part of it, would become the dominant feature or focal point of the view.
Moderate	<p>Adverse - Partial loss or noticeable damage to existing character or distinctive features and elements, and/or the addition of new but uncharacteristic noticeable features and elements, or</p>	The scheme, or a part of it, would form a noticeable feature or element of the view which is readily apparent to the receptor.

	Beneficial - Partial or noticeable improvement of character by the restoration of existing features and elements, and/or the removal of uncharacteristic and noticeable features and elements, or by the addition of new characteristic features.	
Minor	Adverse - Slight loss or damage to existing character or feature and elements, and/or the addition of new but uncharacteristic features and elements, or Beneficial - Slight improvement of character by the restoration of existing features and elements, and/or the removal of uncharacteristic features and elements, or by the addition of new characteristic elements.	The scheme, or a part of it, would be perceptible but not alter the overall balance of features and elements that comprise the existing view.
Negligible	Where the development would appear as a barely perceptible component in the landscape and result in very minor alteration to the existing balance of components in the baseline context.	Only a small part of the scheme would be discernible, or it is at such a distance that it would form a barely noticeable feature or element of the view.
No change	Where the development would have no effect on the components in the landscape resulting in no alteration to the existing balance of components in the baseline context.	No part of the scheme, or work or activity associated with it, is discernible.

EFFECT SIGNIFICANCE

Landscape/ Visual Receptor Sensitivity	Magnitude of Impact				
	No Change	Negligible	Minor	Moderate	Major
High	Neutral	Slight	Slight/Moderate	Moderate/Large	Large/Very Large
Medium	Neutral	Neutral/Slight	Slight	Moderate	Moderate/ Large
Low	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/ Moderate

Table 10.5- Typical Descriptors of the Significance of Landscape and Visual Effect Categories		
SCORE		COMMENT
Very Large Effect	Where the Proposed Scheme could be expected to have a very significant effect (either positive or negative) on receptors	Landscape Adverse- Be at considerable variance with the character (including quality and value) of the landscape. Loss of mature or diverse landscape elements, features or Characteristics, aesthetic or perceptual qualities. Effects on rare, distinctive, particularly representative qualities.
		Beneficial- Greatly enhance / enhance the character (including quality and value) of the landscape. Enable the restoration of characteristic features and elements lost as a result of changes from inappropriate management or development. Enable a sense of place to be enhanced.
		Visual Adverse - The project would cause major deterioration to a view from a highly sensitive receptor, and would constitute a major discordant element in the view.
		Beneficial - The project would lead to a major improvement in a view from a highly sensitive receptor.
Large effect:	Where the Proposed Scheme could be expected to have a significant effect (either positive or negative) on receptors	Landscape Adverse- Be at considerable variance with the character (including quality and value) of the landscape. Degrade or diminish the integrity of a range of characteristic features and elements. Damage a sense of place.
		Beneficial- Greatly enhance / enhance the character (including quality and value) of the landscape. Enable the restoration of characteristic features and elements lost as a result of changes from inappropriate management or development. Enable a sense of place to be enhanced.
		Visual Adverse - The project would cause major deterioration to a view from a highly sensitive receptor, and would constitute a major discordant element in the view.
		Beneficial - The project would lead to a major improvement in a view from a highly sensitive receptor.

<p>Moderate effect:</p>	<p>Where the Proposed Scheme could be expected to have a noticeable effect (either positive or negative) on receptors;</p>	<p>Landscape</p> <p>Adverse - Conflict with the character (including quality and value) of the landscape.</p> <p>Have an adverse impact on characteristic features or elements.</p> <p>Diminish a sense of place.</p> <hr/> <p>Beneficial - Improve the character (including quality and value) of the landscape.</p> <p>Enable the restoration of characteristic features and elements partially lost or diminished as a result of changes from inappropriate management or development.</p> <p>Enable a sense of place to be restored.</p> <hr/> <p>Visual</p> <p>Adverse - The project would cause obvious deterioration to a view from a moderately sensitive receptor, or perceptible damage to a view from a more sensitive receptor.</p> <hr/> <p>Beneficial - The proposals would cause obvious improvement to a view from a moderately sensitive receptor, or perceptible improvement to a view from a more sensitive receptor.</p>
<p>Slight effect</p>	<p>Where the Proposed Scheme could be expected to result in a small, barely noticeable effect (either positive or negative) on receptors; and</p>	<p>Landscape</p> <p>Adverse - Not quite fit the character (including quality and value) of the landscape.</p> <p>Be at variance with characteristic features and elements.</p> <p>Detract from a sense of place.</p> <hr/> <p>Beneficial - Complement the character (including quality and value) of the landscape.</p> <p>Maintain or enhance characteristic features and elements.</p> <p>Enable some sense of place to be restored.</p> <hr/> <p>Visual</p> <p>Adverse - The project would cause limited deterioration to a view from a receptor of medium sensitivity, or cause greater deterioration to a view from a receptor of low sensitivity.</p> <hr/> <p>Beneficial - The project would cause limited improvement to a view from a receptor of medium sensitivity, or would cause greater improvement to a view from a receptor of low sensitivity.</p>
<p>Neutral:</p>	<p>Where no discernible effect is expected as a result of the Proposed Scheme on receptors.</p>	<p>Landscape</p> <p>Maintain the character (including quality and value) of the landscape.</p> <p>Blend in with characteristic features and elements.</p>

		Enable a sense of place to be retained.
		Visual No perceptible change in the view.

- Effects that are deemed to be significant for the purpose of this assessment are those that are described as being moderate or major positive or negative.
- The characteristics of an effect will vary depending on the duration of the activity causing the effect, the sensitivity of the receptor and the resultant change. It is therefore necessary to assess whether the effect is short, medium or long term; temporary or permanent; positive and negative, and reversible or irreversible. Effects that are temporary are reversible and generally confined to the construction period.
- For the purposes of this ES the terms used in the assessment of effects are generally defined as follows:
 - **Short-term:** where the effect would be of short duration and would occur for up to 2 years;
 - **Medium-term:** where the effect occurs for a period of between 2 - 10 years;
 - **Long-term:** where the effect occurs for 10 years or more and includes permanent effects;
 - **Temporary:** where the effect occurs for a limited period of time and the change at a defined receptor can be reversed;
 - **Intermittent:** where the effect occurs for short periods of time and may re-occur occasionally at regular or irregular intervals;
 - **Permanent:** where the effect represents a long-lasting change at a defined receptor;
 - **Direct:** where the effect is a direct result (or primary effect) of the Proposed Development;
 - **Indirect:** a secondary effect which occurs within or between environmental components, may include effects on the environment which are not a direct result of the Proposed Development, often occurring away from the proposals or as a result of a complex biological or chemical pathway; and
 - **Cumulative:** the collective effects of changes that may be insignificant individually but in combination, often over time, have the potential to be significant (see Section on cumulative below).