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TYTHERINGTON QUARRY: 6 MILLION TONNES ADDITIONAL RESERVES

Environmental Statement: Appendix 6A Landscape and Visual - Methodology





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WSP

Canon Court West Abbey Lawn Shrewsbury SY2 5DE

Phone: +44 1743 342 000

WSP.com



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6A APPENDIX 6A LANDSCAPE AND VISUAL IMPACT ASSESSMENT METHODOLOGY

6A.1 INTRODUCTION

- 6A.1.1 This appendix describes the methodology used for the Landscape and Visual Impact Assessment (LVIA) for the Proposed Scheme and has been structured as follows:
 - Overview of LVIA methodology;
 - Assessing landscape effects;
 - Assessing visual effects;
 - Assessing cumulative landscape and visual effects;
 - Evaluation of significance;
 - Type or nature of effect; and
 - Production of visualisations.

6A.2 OVERVIEW OF LVIA METHODOLOGY

- 6A.2.1 The LVIA assesses the likely effects of the Proposed Scheme on the landscape and visual resource, encompassing effects on landscape elements, characteristics and landscape character, designated landscapes, visual effects and cumulative effects.
- 6A.2.2 Essentially, the landscape and visual effects (and whether they are significant) is determined by an assessment of the nature or 'sensitivity' of each receptor or group of receptors and the nature of the effect or 'magnitude of change' that would result from the Proposed Scheme. The evaluation of sensitivity takes account of the value and susceptibility of the receptor to the Proposed Scheme. This is combined with an assessment of the magnitude of change which takes account of the size and scale of the proposed change, the geographical extent and the duration of that change. By combining assessments of sensitivity and magnitude of change, a level of landscape or visual effect can be evaluated and determined.
- 6A.2.3 The resulting level of effect is described in terms of whether it is significant or not significant and the type of effect is described as either direct or indirect; temporary or permanent (reversible); cumulative; and beneficial, neutral or adverse.
- 6A.2.4 LVIA unavoidably involves a combination of both quantitative and subjective assessment and wherever possible a consensus of professional opinion has been sought through consultation, internal peer review, and the adoption of a systematic, impartial, and professional approach.

6A.3 ASSESSING LANDSCAPE EFFECTS

6A.3.1 Landscape effects are defined by the Landscape Institute in Guidelines for Landscape and Visual Impact Assessment, 3rd Edition¹ (GLVIA 3), paragraphs 5.1 and 5.2 as follows:

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¹ Landscape Institute and the Institute of Environmental Management and Assessment, (2013). *Guidelines for Landscape and Visual Impact Assessment. 3rd edition.* London. Routledge.



"An assessment of landscape effects deals with the effects of change and development on landscape as a resource. The concern ... is with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character. ... The area of landscape that should be covered in assessing landscape effects should include the site itself and the full extent of the wider landscape around it which the development may influence in a significant manner."

LANDSCAPE EFFECTS

- 6A.3.2 The potential landscape effects occurring during the phases of the Proposed Scheme may include, but are not restricted to, the following:
 - Changes to landscape elements: The addition of new elements (large buildings for example) or the removal of existing elements such as trees, vegetation, buildings and other characteristic elements or valued features of the landscape character;
 - Changes to landscape qualities: Degradation or erosion of landscape elements and patterns and perceptual characteristics, particularly those that form key characteristic elements of the landscape character or contribute to the landscape value;
 - Changes to landscape character: Landscape character may be affected through the
 incremental effect on characteristic elements, landscape patterns and qualities (including
 perceptual characteristics) and the addition of new features, the magnitude of which is sufficient
 to alter the overall landscape character within a particular area;
 - Changes to designated landscapes: Including nationally and locally designated landscapes
 that would affect the special landscape qualities underpinning these areas and their integrity; and
 - Cumulative landscape effects: Where more than one development of a similar type may lead to a cumulative landscape effect.
- 6A.3.3 Development may have a direct effect on the landscape as well as an indirect effect which would be perceived from the wider landscape outside the immediate site area and its associated landscape character. Landscape effects also have to be recognised in terms of change over time where natural and manmade processes can alter the landscape.

EVALUATING LANDSCAPE SENSITIVITY TO CHANGE

- 6A.3.4 The assessment of sensitivity takes account of the landscape value and the susceptibility of the receptor to the Proposed Scheme.
- 6A.3.5 Landscape sensitivity often varies in response to both the type and phase of the development proposed and its location, such that landscape sensitivity needs to be considered on a case-by-case basis. It should not be confused with 'inherent sensitivity' where areas of the landscape may be referred to as inherently of 'high' or 'low' sensitivity. For example, a National Park may be described as inherently of high sensitivity on account of its designation and value, although it may prove to be less sensitive or susceptible to particular development, and of variable sensitivity across its geographical area. Alternatively, an undesignated landscape may be of high sensitivity to a particular development regardless of the lack of local or national designation.

Value of the Landscape Receptor

6A.3.6 The value of a landscape receptor is a reflection of the value that society attaches to that landscape. The assessment of the landscape value is classified as **high**, **medium** or **low** and the basis for this assessment is made clear using evidence and professional judgement, based on the following range of factors:



- Landscape designations: A receptor that lies within the boundary of a recognised landscape related planning designation will be of increased value (depending on the proportion of the receptor that is affected) and the level of importance of the designation which may be international, national, regional or local. The absence of designation does not, however, preclude value since an undesignated landscape receptor may be valued as a resource in the local or immediate environment.
- Landscape quality: The quality of a landscape receptor is a reflection of its attributes, such as scenic quality, sense of place, rarity and representativeness and the extent to which its valued attributes have remained intact. A landscape with consistent, intact, well-defined and distinctive attributes is considered to be of higher quality and, in turn, higher value than a landscape where the introduction of elements has detracted from its character.
- Landscape experience: The experiential qualities that can be evoked by a landscape receptor can add to its value. These responses relate to a number of factors including cultural associations that may exist in art, literature or history; the recreational value of the landscape or the iconic status of the landscape in its own right; and its contribution of other values such as nature conservation or archaeology.

Landscape Susceptibility to Change

- 6A.3.7 The susceptibility of a landscape receptor to change is a reflection of its ability to accommodate the changes that will occur as a result of the Proposed Scheme without undue consequences for the maintenance of the baseline situation and / or the achievement of landscape planning policies and strategies. Some landscape receptors are better able to accommodate development than others due to certain characteristics that are indicative of capacity to accommodate change. These characteristics may or may not also be special landscape qualities that underpin designated landscapes.
- 6A.3.8 The assessment of the susceptibility of the landscape receptor to change is classified as **high**, **medium** or **low**, and the basis for this assessment is made clear using evidence and professional judgement. Indicators of landscape susceptibility to the type of development proposed (decommissioning) are based on the following criteria:
 - Overall Strength and Robustness: Collectively, the overall characteristics and qualities of a particular landscape result in a strong and robust landscape that is capable of reasonably accommodating the Proposed Scheme without undue adverse effects on the special landscape qualities (in the case of a designated landscape) or the key characteristics for which an area of landscape character or a particular element is valued.
 - Landscape Scale and Topography: The scale and topography are large enough to physically accommodate the development footprint without the requirement of invasive earthworks or drainage. Topographical features such as narrow valleys or more complex and small-scale landforms such as drumlins, incised river valleys / gorges, cliffs or rock outcrops are likely to be more susceptible to this type of development than broad, homogenous topography.
 - Openness/enclosure: Openness in the landscape may increase susceptibility to change because it can result in wider visibility of the Proposed Scheme; however, open landscape may also be larger in scale and simple, which would decrease susceptibility. Conversely, enclosed landscapes can offer more screening potential, limiting visibility to a smaller area. However, they may also be smaller in scale and more complex which would increase susceptibility.
 - Land Cover Pattern: Ancient and mature or long-established vegetation such as mature trees, woodland and protected hedgerows are likely to be more susceptible to the Proposed Scheme, particularly where these elements form part of a valued characteristic landscape pattern or feature. Conversely, grassland and / or forestry are likely to be less susceptible to development.



- **Skyline:** Prominent and distinctive skylines and horizons with important landmark features that are identified in the landscape character assessment are generally considered to be more susceptible to development in comparison to broad, simple skylines which lack landmark features or contain other infrastructure features.
- Relationship with other Development and Landmarks: Contemporary landscapes where there are existing forms of development (industry, mineral extraction or electrical grid connections) that already have a characterising influence result in a lower susceptibility to development in comparison to areas characterised by smaller scale, historic development and landmarks (historic villages with dense settlement patterns and associated buildings, such as church towers). It should be noted that some existing development, for example wind energy development, is time limited and subject to decommissioning.
- Rationale: Some site locations have an obvious visual rationale for the Proposed Scheme in terms of the available space, access, simplicity and relationship to other similar forms of development. Conversely, a site may appear overly constrained and require greater engineering or additional construction activity to accommodate the Proposed Scheme with lower design quality and few embedded environmental measures.
- Remoteness, Naturalness, Wildness / Tranquillity: Notably landscapes that are acknowledged to be particularly scenic, wild or tranquil are generally considered to be more susceptible to development in comparison to ordinary, cultivated or forested / developed landscapes where perceptions of 'wildness' are less tangible. Landscapes which are either remote or appear natural may vary in their susceptibility to development.
- Landscape Context and Adjacent Landscapes: The extent to which the Proposed Scheme will influence landscape receptors across the Study Area relates to the associations that exist between the landscape receptor within which the Proposed Scheme is located and the landscape receptor from which the Proposed Scheme is experienced. In some situations, this association will be strong, where the landscapes are directly related. For example, adjacent areas of landscape character may share or 'borrow' a high number of common characteristics. Landscape elements may be linked to, or associated with, wider landscape patterns such as individual trees forming part of an avenue or pattern of woodland corpses, for example. In other situations, the association between adjacent landscapes will be weak. The context and visual connection to areas of adjacent landscape character or designations has a bearing on the susceptibility to development.

Landscape Sensitivity Rating

- 6A.3.9 An overall sensitivity assessment of the landscape receptor is made by combining the assessment of the value of the landscape character receptor and its susceptibility to change. The evaluation of landscape sensitivity is described as 'High', 'Medium' or 'Low' and is drawn from the consideration of a range of criteria that indicate landscape value and susceptibility. The basis for the assessment is made clear using evidence and professional judgement in the evaluation of sensitivity for each receptor.
- 6A.3.10 Criteria that tend towards higher or lower sensitivity are set out in **Table 6A-1**.



Table 6A-1 - Landscape sensitivity to change

Value / Susceptibility criteria Level of value/susceptibility ranging from 'High' to 'Medium' to 'Low'



	ingii we	EOW LOW
Landscape Value		
Designation	Designated landscapes / elements with national policy level protection or defined for their natural beauty. Evidence that the landscape / element is valued or used substantially for recreational activity.	Landscapes without formal designation. Despoiled or degraded landscape with little or no evidence of being valued by the community. Elements that are uncharacteristic such as non-natives or self-seeded vegetation that may need to be cleared.
Natural heritage	Landscapes with clear evidence of ecological, geological, geomorphological or physiographic interest which contribute positively to the landscape.	Landscapes with minimal evidence of ecological, geological, geomorphological or physiographic interest or which provide limited contribution to the landscape.
Cultural heritage	Landscapes with clear evidence of archaeological, historical or cultural interest which contribute positively to the landscape.	Landscapes with minimal evidence of archaeological, historical or cultural interest or which provide limited contribution to the landscape.
Condition	Higher quality landscapes / elements with consistent, intact and well-defined, distinctive attributes.	Lower quality and indistinct landscapes / elements or features that detract from its inherent attributes.
Associations	Landscapes which are connected with notable people, events and the arts.	Landscapes with few associations.
Distinctiveness	Landscapes that have a strong sense of identity. May also include rare or unique landscape character types, features or elements.	Landscapes that have a weak sense of identity. May also include widespread or 'common' landscape character types, features or elements.
Recreational	Landscape offering recreational opportunities where experience of landscape is important.	Landscape with limited recreational opportunities.
Perceptual (scenic)	Landscapes that appeal to the senses, primarily the visual sense.	Landscapes within limited appeal to the visual sense.

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Landscape

change

sensitivity to

Value / Susceptibility criteria	Level of value/susceptibility ranging from 'High' to 'Medium' to 'Low' High			
Perceptual (wildness and tranquillity)	Landscapes with a strong perceptual value notably wildness, remoteness, tranquillity and/or dark skies	Landscapes with a limited perceptual value linked to wildness, remoteness, tranquillity and/or dark skies		
Susceptibility to lar	ndscape change			
Strength and robustness	Fragile landscape vulnerable and lacking the ability to accommodate change.	Robust landscape, able to accommodate change or loss of features without undue adverse effects.		
Landscape Scale	A landscape of a suitably large enough scale to accommodate the development.	A smaller scale landscape that may require further engineering to accommodate the development.		
Openness / Enclosure	An open landscape with limited screening or potential may be of higher susceptibility to the Proposed Scheme.	An enclosed landscape with screening or potential for mitigation may be of lower susceptibility to the Proposed Scheme.		
Reinstatement	Lower value, non-characteristic landcover and elements capable of rapid reinstatement.	Higher value, characteristic landcover and elements that cannot be easily reinstated or replaced.		
Skyline	Distinctive undeveloped skylines with landmark features.	Developed, nondistinctive skylines.		
Association	Weak and indirect association. Other development may be of a smaller scale or historic.	Strong or direct association other similar contemporary developments / landscape character.		
Rationale	Strong landscape rationale and opportunity with high degree of design quality and / or embedded environmental measures.	Landscape with numerous environmental and technical constraints with lower design quality and / or embedded environmental measures.		
Perceptual Qualities	Perceptual qualities associated with particular scenic qualities, wildness or tranquillity.	Contemporary, cultivated / settled or developed landscapes are likely to have a lower susceptibility.		
Landscape Context	Adjacent landscape character context connected by borrowed character and views.	Host landscape character is separate from surrounding / adjacent landscape character.		

'Medium' to 'Low'.

Sensitivity drawn from consideration of the Value and Susceptibility criteria

with the final conclusion on the level of sensitivity ranging from 'High' to



Sensitivity of landscape elements

Value of landscape elements

- 6A.3.11 In line with paragraphs 5.30 and 5.33 of GLVIA 3¹the value of landscape elements has been considered under three criteria as follows:
 - Rarity: The presence of rare elements or features in the landscape often (although not always) supported through designation;
 - Condition: a measure of the physical state of the landscape element or feature; and
 - Role: the contribution the landscape element makes to the visual amenity and scenic quality, as well as the landscape character at a district level (reflected as key characteristics within a LCA).
- 6A.3.12 It is the combination of the three criteria listed above that leads to the judgement of an overall landscape value which may be either Low, Medium or High.

Susceptibility of landscape elements

6A.3.13 The susceptibility of the landscape elements is approached with reference to whether these elements can be 'replaced' as described in paragraph 5.30 of GLVIA 3¹. By way of an example, one may consider that a stone wall can be re-built relatively easily, in contrast a 500-year-old oak tree cannot be replaced without a similar growth period. The concept of 'replacement' is not a reflection of what might or might not happen as part of the development, rather it is a measure of susceptibility to change. Landscape elements that are difficult to replace or cannot be replaced are likely to be of higher susceptibility than those which can be easily replaced such as improved grassland.

LANDSCAPE MAGNITUDE OF CHANGE

6A.3.14 The magnitude of change affecting landscape receptors is an expression of the scale of change that would result from the Proposed Scheme. In assessing the magnitude of change the assessment has focused on the size or scale of change and its geographical extent. The duration and reversibility are stated separately in relation to the assessed effects (i.e. as short / medium / long-term and temporary or permanent).

Size or scale of change

- 6A.3.15 This criterion relates to the size or scale of change to the landscape that would arise as a result of the Proposed Scheme, based on the following factors:
 - Landscape Elements: The degree to which the landscape elements or pattern of elements that makes up the landscape character would be altered by the Proposed Scheme through the loss, alteration or addition of elements in the landscape. The magnitude of change would generally be higher if the features that make up the landscape character are extensively removed or altered, and / or if many new components are added to the landscape.
 - Landscape Characteristics: The extent to which the effect of the Proposed Scheme change (physically or perceptually) the key characteristics of the landscape which may be important to its distinctive character. This may include, for example, the scale of the landform, its relative simplicity, complexity or irregularity, the nature of the landscape context, the grain or orientation of the landscape, the degree to which the receptor is influenced by external features and the juxtaposition of the Proposed Works in relation to these key characteristics.
 - Landscape Character / Designation: The degree to which landscape character receptors would be changed by the Proposed Scheme. If the Proposed Works is located in a landscape receptor that is already affected by other similar development, this may reduce the magnitude of change if there is a high level of integration and the developments form a unified and cohesive feature in



the landscape. In the case of designated landscapes, the degree of change is considered in light of the effects on the special landscape qualities which underpin the designation and the effect on the integrity of the designation.

All landscapes change over time and much of that change is managed or planned. Often landscapes will have management objectives for 'protection' or 'accommodation' of development. The scale of change may be localised, or occurring over parts of an area, or more widespread affecting whole landscape character areas and their overall integrity. Developmental change may be time limited or permanent.

■ **Distance**: The size and scale of change is also strongly influenced by the proximity of the Proposed Scheme to the receptor and the extent to which the Proposed Scheme can be seen as a characterising influence on the landscape. Consequently, the scale or magnitude of change is likely to be lower in respect of landscape receptors that are distant from the Proposed Scheme and / or screened by intervening landform, vegetation and built form to the extent that the scale of their influence on landscape receptors is small or limited. Conversely, landscapes closest to the Proposed Scheme are likely to be most affected. Host landscapes (where the Proposed Scheme is located within a 'host' landscape character unit) would be directly affected whilst adjacent areas of landscape character would be indirectly affected.

Geographical extent

- 6A.3.16 Landscape effects are described in terms of the geographical extent or physical area that would be affected (described as a linear or area measurement). This should not be confused with the scale of the development or its physical footprint. The manner in which the geographical extent of the landscape effect is described for different landscape receptors is explained as follows:
 - Landscape Elements: The geographical extent of landscape elements may be objectively measured in terms of numbers, area or linear measurement. For example, the number of trees, area of woodland and / or length of hedgerow affected may be recorded.
 - Landscape Character / Characteristics: The extent of the effects on landscape character will vary depending on the specific nature of the Proposed Scheme. This is not simply an expression of visibility or the extent of the ZTV. It is a specific assessment of the extent of landscape character that would be changed by the Proposed Scheme in terms of its character, key characteristics and elements.
 - Landscape Designations: In the case of a designated landscape, this refers to the extent that the special landscape qualities of the designation are affected and whether this can be defined in terms of area or linear measurements, or subjectively (with the support of panel and / or peer review) and whether the integrity of the designation is affected.

Duration and reversibility

- 6A.3.17 The duration and reversibility of landscape effects is based on the period over which the Proposed Scheme would occur. Long-term, medium-term and short-term landscape effects are defined as follows:
 - Temporary / Reversible Development: This includes time limited elements and activities:
 - Long-term more than 10 years;
 - Medium-term 6 to 10 years; and
 - Short-term 1 to 5 years.

Landscape magnitude of change rating

6A.3.18 The 'magnitude' or 'degree of change' resulting from the Proposed Scheme is described as '**High'**, '**Medium'**, '**Low'**, '**Very Low**' or '**Zero**'. In assessing the magnitude of change, the assessment has



focused on the size or scale of change and its geographical extent. The duration and reversibility are stated separately in relation to the assessed effects (i.e. as short / medium / long-term and temporary or permanent). The basis for the assessment of magnitude for each receptor is made clear using evidence and professional judgement.

6A.3.19 The levels of magnitude of change that can occur are defined in **Table 6A-2**.

Table 6A-2 - Landscape magnitude of change

Magnitude of
landscape
change

Examples of Landscape Magnitude

High

Size / Scale:

A large-scale change and major loss of key landscape elements / characteristics or the addition of large scale or numerous new and uncharacteristic features or elements that would affect the landscape character and the special landscape qualities / integrity of a landscape designation.

Directly affecting a host landscape receptor or indirectly affecting a nearby receptor.

Geographical extent:

The size or scale of change would typically, but not always affect a large geographical extent or area and may be close to the Proposed Scheme.

High/Medium

Intermediate rating with a combination of criteria from high or medium magnitude.

Medium

Size / Scale:

A medium scale change and moderate loss of some key landscape elements / characteristics or the addition of some new medium scale uncharacteristic features or elements that could partially affect the landscape character and the special landscape qualities / integrity of a landscape designation.

Directly affecting a host landscape receptor or indirectly affecting a nearby receptor.

Geographical extent:

The size or scale of landscape change would typically, but not always affect a more localised geographical extent at an intermediate distance from the Proposed Scheme.

Medium/Low

Intermediate rating with a combination of criteria from medium or low magnitude.

Low

Size / Scale:

A small-scale change and minor loss of a few landscape elements / non key characteristics, or the addition of some new small-scale features or elements of limited characterising influence on landscape character / designations.

Geographical extent:



Magnitude of landscape change

Examples of Landscape Magnitude

There may be a small partial change in landscape character, typically, but not always affecting a localised geographical extent at some distance from the Proposed Scheme.

Low/Very Low Intermediate rating with a combination of criteria from low or very low magnitude.

Very Low Size / Scale:

A very small-scale change that may include the loss or addition of some landscape elements of limited characterising influence. The landscape characteristics and

character would be unaffected.

Geographical extent:

Typically affecting a very small geographical extent at greater distance from the

Proposed Scheme.

EVALUATING LANDSCAPE EFFECTS AND SIGNIFICANCE

- 6A.3.20 The level of landscape effect is evaluated through the combination of landscape sensitivity and magnitude of change. Once the level of effect has been assessed, a judgement is then made as to whether the level of effect is 'significant' or 'not significant'. This process is assisted by the matrix illustrated in **Table 6A-5** which is used to guide the assessment.
- 6A.3.21 Further information is also provided about the nature of the effects (whether these would be direct / indirect; temporary / permanent / reversible; beneficial / neutral / adverse or cumulative).

Significant Landscape Effects

6A.3.22 A significant effect would occur where the combination of the variables results in a defining effect on the landscape receptor due to the Proposed Scheme, or where changes of a lower magnitude affect a landscape receptor that is of particularly high sensitivity. A major loss or irreversible effect over an extensive area or landscape character, affecting landscape elements, characteristics and / or perceptual aspects that are key to a nationally valued landscape are likely to be significant.

Non-Significant Landscape Effects

6A.3.23 A non-significant effect would occur where the effect of the Proposed Scheme is not defining, and the landscape character of the receptor continues to be characterised principally by its baseline characteristics. Equally, a small-scale change experienced by a receptor of high sensitivity may not significantly affect the special landscape quality or integrity of a designation. Reversible effects on elements, characteristics and character that are of small-scale or affecting lower value receptors are unlikely to be significant.

6A.4 ASSESSING VISUAL EFFECTS

6A.4.1 Visual Effects are concerned wholly with the effect of the development on views and the general visual amenity and are defined by the Landscape Institute in GLVIA 3¹, paragraphs 6.1 as follows:

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- "An assessment of visual effects deals with the effects of change and development on views available to people and their visual amenity. The concern ... is with assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the context and character of views."
- 6A.4.2 Visual effects are identified for different receptors (people) who would experience the view at their place of residence, within their community, during recreational activities, at work, or when travelling through the area. The visual effects include:
 - A change to an existing static view, sequential views, or wider visual amenity as a result of development or the loss of particular landscape elements or features already present in the view.
- 6A.4.3 The level of visual effect (and whether this is significant) is determined through consideration of the sensitivity of each visual receptor (or range of sensitivities for receptor groups) and the magnitude of change that would be brought about under the different phases of the Proposed Scheme.

EVALUATING VISUAL SENSITIVITY TO CHANGE

6A.4.4 In accordance with paragraphs 6.31-6.37 of GLVIA 3¹, the sensitivity of visual receptors is determined by a combination of the value of the view and the susceptibility of the visual receptors to the change likely to result from the Proposed Works on the view and visual amenity.

View / Visual Amenity Value

- 6A.4.5 The value of a view or series of views reflects the recognition and importance attached either formally through identification on mapping or being subject to planning designations, or informally through the value which society attaches to the view(s). The value of a view is classified as high, medium or low and the basis for this assessment is made clear using evidence and professional judgement, based on the following criteria:
 - Formal recognition: The value of views can be formally recognised through their identification on Ordnance Survey (OS) or tourist maps as formal viewpoints, sign-posted and with facilities provided to add to the enjoyment of the viewpoint such as parking, seating and interpretation boards. Specific views may be afforded protection in local planning policy and recognised as valued views. Specific views can also be cited as being of importance in relation to landscape or heritage planning designations, for example the value of a view would be increased if it presents an important vista from a designed landscape or lies within / overlooks a designated area which implies a greater value to the visible landscape.
 - Informal recognition: Views that are well-known at a local level and / or have particular scenic qualities can have an increased value, even if there is no formal recognition or designation. Views or viewpoints are sometimes informally recognised through references in art or literature and this can also add to their value. A viewpoint that is visited and appreciated by a large number of people would generally have greater importance than one gained by very few people.

Susceptibility to Change

- 6A.4.6 Susceptibility relates to the nature of the viewer experiencing the view and how susceptible they are to the potential effects of the Proposed Scheme. A judgement to determine the level of susceptibility therefore relates to the nature of the viewer and their experience from that particular viewpoint or series of viewpoints, classified as high, medium or low and based on the following criteria:
 - Nature of the viewer: The nature of the viewer is defined by the occupation or activity of the viewer at the viewpoint or series of viewpoints. The most common groups of viewers considered in the visual assessment include residents, motorists, and people taking part in recreational

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- activity or working. Viewers—whose attention is focused on the landscape or with static long-term views—are likely to have a higher sensitivity. Viewers travelling in cars or on trains would tend to have a lower sensitivity as their view is transient and moving. The least sensitive viewers are usually people at their place of work as they are generally less sensitive to changes in views.
- Experience of the viewer: The experience of the visual receptor relates to the extent to which the viewer's attention or interest may be focused on the view and the visual amenity they experience at a particular location. The susceptibility of the viewer to change that arises from the Proposed Scheme may be influenced by the viewer's attention or interest in the view, which may be focused in a particular direction, from a static or transitory position, over a long or short duration, and with high or low clarity. For example, if the principal outlook from a settlement is aligned directly towards the Proposed Scheme, the experience of the visual receptor would be altered more notably than if the experience relates to a glimpsed view seen at an oblique angle from a car travelling at high speed. The visual amenity experienced by the viewer varies depending on the presence and relationship of visible elements, features or patterns experienced in the view and the degree to which the landscape in the view may accommodate the influence of the Proposed Scheme.

Visual Sensitivity Rating

6A.4.7 An overall level of sensitivity is applied for each visual receptor or view, classified as 'High', 'Medium' or 'Low' by combining individual assessments of the value of the view and the susceptibility of the visual receptor to change. Each visual receptor, meaning the particular person or group of people likely to be affected at a specific viewpoint, is assessed in terms of their sensitivity. The basis for the assessments is made clear using evidence and professional judgement in the evaluation of each receptor. Criteria that tend towards higher or lower sensitivity are set out in Table 6A-3.

Table 6A-3 - Visual sensitivity to change

Level of value/susceptibility ranging from 'High' to 'Medium' to 'Low' Value / Susceptibility criteria Medium High Low Value –determined by a range of indicators/criteria with examples as follows: Viewpoint not identified in OS maps or Map/tourist Specific viewpoint identified in OS maps information and / or tourist information and signage. tourist information and signage. **Facilities** Facilities provided at viewpoint to aid the No facilities provided at viewpoint to aid enjoyment of the view. enjoyment of the view. **Planning** View afforded protection in planning View is not afforded protection in planning recognition policy. policy. Landscape value View is within or overlooks a designated View is not within, nor does it overlook, a landscape, which implies a higher value to designated landscape. the visible landscape.

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Value /
Susceptibility
criteria

Level of value/susceptibility ranging from 'High' to 'Medium' to 'Low'

		1	
High	Medium		Low

Recognition

View has informal recognition and well-known at a local level, as having particular scenic qualities.

View has no informal recognition and is not known as having particular scenic qualities.

Art/Literature

View or viewpoint is recognised through references in art or literature.

View or viewpoint is not recognised in references in art or literature.

Scenic Quality

View has high scenic qualities relating to the content and composition of the visible landscape. View has low scenic qualities relating to the content and composition of the visible landscape.

Susceptibility – determined by a range of indicators / criteria with examples as follows:

Activity of the viewer

Viewer who is likely or liable to be influenced by the Proposed Scheme such as residents, walkers, or tourists, whose main attention and interest may be on their surroundings.

Viewer who is un or less likely to be influenced by the Proposed Scheme such as viewers whose attention is not focused on their surroundings (e.g. people at work, or team sports).

Nature of the View

Residents that gain static, long-term views of the development in their principal outlook.

Mobile viewers whose views are transient and dynamic (e.g. travelling in cars or on trains with glimpsed views).

Direction/ Field of View

A view that is focused in a specific directional vista, with notable features of interest in a particular part of the view.

Open views with no specific point of interest.

Visual amenity

Viewers are focused on the experience of a high level of visual amenity at the location due to its overall pleasantness as an attractive visual setting or backdrop to activities. The visual amenity experienced at the location by viewers is less pleasant or attractive than might otherwise be the case.

Visual sensitivity to change

Sensitivity drawn from consideration of the Value and Susceptibility criteria with the final conclusion on the level of sensitivity ranging from 'High' to 'Medium' to 'Low'.

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VISUAL MAGNITUDE OF CHANGE

6A.4.8 The visual magnitude of change is an expression of the scale of change that would result from the visibility of the Proposed Scheme. In assessing the magnitude of change, the assessment has focused on the size or scale of change and its geographical extent. The duration and reversibility are stated separately in relation to the assessed effects (i.e. as short / medium / long-term and temporary / permanent).

Size or Scale of Change

- 6A.4.9 An assessment is made of the size or scale of change in the view that is likely to be experienced as a result of the Proposed Scheme, based on the following criteria:
 - Distance: the distance between the visual receptor / viewpoint and the Proposed Scheme.
 Generally, the greater the distance, the lower the magnitude of change as the Proposed Works would constitute a smaller-scale component of the view.
 - Size: the amount and size of the Proposed Scheme that would be seen. Visibility may range from a small / partial to whole visibility of the Proposed Works

 This is also related to the degree to which development may be wholly or partly screened by landform, vegetation (seasonal) and / or built form. Conversely, open views are likely to reveal more of a development, particularly where this is a key characteristic of the landscape.
 - Scale: the scale of the change in the view with respect to the loss or addition of features in the view and changes in its composition. The scale of the Proposed Scheme may appear larger or smaller relative to the scale of the receiving landscape.
 - Field of View: the vertical / horizontal field of view (FoV) and the proportion of view that is affected by the Proposed Scheme. Generally, the more of the proportion of a view that is affected, the higher the magnitude of change would be. If the Proposed Scheme extends across the whole of an open outlook, the magnitude of change would generally be higher as the full view would be affected. Conversely, if the Proposed Scheme extends over a narrow part of an open view, the magnitude of change is likely to be reduced as the Proposed Scheme would not affect the whole view or outlook. This can in part be described objectively by reference to the horizontal / vertical FoV affected relative to the extent and proportion of the available view.
 - Contrast: the character and context within which the Proposed Scheme would be seen and the degree of contrast or integration of any new features with existing landscape elements, in terms of scale, form, mass, line, height, colour, luminance and motion. Developments which contrast or appear incongruous in terms of colour, scale and form are likely to be more visible and have a higher magnitude of change.
 - Consistency of image: the consistency of image of the Proposed Scheme in relation to other developments. The magnitude of change for the Proposed Scheme is likely to be lower if it appears broadly similar to other developments in the landscape in terms of its scale, form and general appearance. New development is more likely to appear as logical components of the landscape with a strong rationale for their location.
 - Skyline / Background: whether the Proposed Scheme would be viewed against the skyline or a background landscape may affect the level of contrast and magnitude. For example, skyline developments may appear more noticeable, particularly where they affect open and uninterrupted or undeveloped horizons. Conversely, development may also appear more noticeable when viewed against a darker background landscape, such as forestry. In these cases, the magnitude of change would tend to be higher. If the Proposed Scheme adds to an already developed skyline the magnitude of change would tend to be lower.
 - Number: Generally, the greater the number of separate development components seen simultaneously or sequentially, the higher the magnitude of change and this may lead to whole



- project effects. Further cumulative effects would occur in the case of separate, existing developments, and their spatial relationship to each other would affect the magnitude of change.
- Nature of Visibility: The Proposed Scheme may be subject to various phases of development change and the manner in which the development may be viewed could be intermittent or continuous and / or seasonal due to periodic management or leaf fall, for example.

Geographical Extent

- 6A.4.10 The geographic extent over which the visual effects would be experienced is also assessed. This is distinct from the size or scale of effect and is described in terms of the physical area or location over which it would be experienced (described as a linear or area measurement). The extent of the effects would vary according to the specific nature of the Proposed Scheme and is principally assessed through ZTV, field survey and viewpoint analysis of the extent of visibility likely to be experienced by visual receptors. The geographical extent of visual effects is described as in the following examples:
 - The geographical extent can be described as an area measurement or proportion of the total receptor affected. For example, effects on people within a particular area such as a golf course or area of common land can be illustrated via a 'representative viewpoint' that represents a similar visual effect, likely to be experienced by larger numbers of people within that area. The geographical extent of that visual effect can be expressed as approximately '5 hectares' or '10%' of the common land or a golf course area.
 - The geographical extent can be described as a linear measurement (m or km) according to the length of route affected. For example, effects on people travelling on a route through the landscape such as a road or footpath can be illustrated via a 'representative viewpoint' that represents a similar visual effect likely to be experienced by larger numbers of people along that route. The geographical extent of that visual effect can be expressed as approximately '2 km' or '10%' of the total length of the route.
 - The geographical extent of a visual effect experienced from a specific viewpoint may be limited to that location alone. (An example of a 'specific viewpoint' is a public viewpoint recommended in tourist literature such as a well visited hill summit. An example of an 'illustrative viewpoint' is a particular location within a built up or well vegetated area where an uncharacteristically open view exists).

Duration and Reversibility

- 6A.4.11 The duration and reversibility of visual effects is based on the period over which the Proposed Scheme would occur (during decommissioning) and the effects reversed at the end of that period. Long-term, medium-term and short-term landscape effects are defined as follows:
 - Temporary / Reversible Development: This includes time limited elements and activities:
 - Long-term more than 10 years;
 - Medium-term 6 to 10 years; and
 - Short-term 1 to 5 years.

Visual magnitude of change rating

6A.4.12 The 'magnitude' or 'degree of change' resulting from the Proposed Scheme is described as 'High', 'Medium', 'Low', 'Very Low' or 'Zero'. In assessing the magnitude of change the assessment has focused on the size or scale of change and its geographical extent. The duration and reversibility are stated separately in relation to the assessed effects (i.e. as short / medium / long-term and temporary / permanent). The basis for the assessment of magnitude for each receptor is made clear

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using evidence and professional judgement and some examples of the levels of magnitude of change that can occur on views are defined in **Table 6A-4**.

Table 6A-4 - Visual magnitude of change

Magnitude of Examples of visual magnitude considerations change

High	Size and Scale:	A very large - large and dominant change to the view.
	Number:	Involving the loss/addition of a large number of features / elements.
	Distance:	Typically appearing closer to the viewer in the fore to mid-ground.
	FoV:	Affecting a large vertical and wide horizontal FoV.
	Nature of Visibility:	Multiple phase development, continuously and sequentially visible.
	Contrast:	Strong degree of contrast with surroundings, little / no screening.
	Skyline:	Visible on the skyline as a new feature.
	Consistency of image:	Contrasting with other existing developments, lacking in visual rationale.
	experienced by large	d from representative viewpoints illustrating a visual effect likely to be r numbers of people, relative to the activity, affecting a large area or route. May also be experienced from a specific viewpoint.
High/Medium	Intermediate rating with combination of criteria from high or medium magnitude of change category.	
Medium	Size and Scale:	A medium and prominent change to the view.
	Number:	Involving the loss/addition of a number of features / elements.
	Distance:	Typically appearing in the middle ground.
	FoV:	Affecting a medium vertical and a medium horizontal FoV.
	Nature of Visibility:	Multiple phase development, intermittently and sequentially visible.
	Contrast:	Contrast with surroundings and may benefit from some screening.
	Skyline:	Visible on the skyline along with other features.



Magnitude of change	Examples of visual magnitude considerations			
	Consistency of image:	Different from other existing developments, some visual rationale.		
	Typically experienced from representative viewpoints illustrating a visual effect likely to be experienced by a medium number of people, relative to the activity, affecting a medium area or length / proportion of route. May also be experienced from a specific viewpoint.			
Medium/Low	Intermediate rating with combination of criteria from medium or low magnitude of change category.			
Low	Size and Scale:	A small / noticeable change, easily missed by the casual observer.		
	Number:	Involving the loss/addition of a small number of features / elements.		
	Distance:	Typically appearing in the background.		
	FoV:	Affecting a small vertical and a narrow horizontal FoV.		
	Nature of Visibility:	Simple, single development, intermittently and infrequently visible.		
	Contrast:	Some parity / 'fits' with surroundings and some screening.		
	Skyline:	Partly visible on a developed skyline or not visible on the skyline.		
	Consistency of image:	Similar from other existing developments with visual rationale, appearing reasonably well accommodated within its surroundings.		
	Typically experienced from illustrative viewpoints likely to be experienced by low numbers of people, relative to the activity, affecting a smaller area or length / proportion of route. May also be experienced from a specific viewpoint.			
Low/Very Low	Intermediate rating with combination of criteria from low or very low magnitude of change category.			
Very Low to Zero	Size and Scale:	A small or negligible change, need to 'look for it'.		
2610	Number:	Involving the loss/addition of a small number of features / elements.		
	Distance:	Typically appearing in the far distance.		
	FoV:	Affecting a small vertical and a very narrow horizontal FoV.		
	Nature of Visibility:	Simple, single development, intermittently and infrequently visible.		



Magnitude of Examples of visual magnitude considerations change

Contrast:	Blends with surroundings and / or is well screened.
Skyline:	Partly visible on a developed skyline or not visible on the skyline.
Consistency of image:	Similar from other existing developments with strong visual rational appearing well accommodated within its surroundings.
of people, relative to	ed from illustrative viewpoints likely to be experienced by low numbers the activity, affecting a smaller area or length / proportion of route. nced from a specific viewpoint.

EVALUATING VISUAL EFFECTS AND SIGNIFICANCE

- 6A.4.13 The level of visual effect is evaluated through the combination of visual sensitivity and magnitude of change. Once the level of effect has been assessed, a judgement is then made as to whether the level of effect is 'significant' or 'not significant'. This process is assisted by the matrix illustrated in **Table 6A-5** which is used to guide the assessment.
- 6A.4.14 Further information is also provided about the nature of the effects (whether these would be direct / indirect; temporary / permanent / reversible; beneficial / neutral / adverse or cumulative).

Significant Visual Effects

6A.4.15 A significant effect is more likely to occur where a combination of the variables results in the Proposed Scheme having a defining effect on the view or visual amenity or where changes affect a visual receptor that is of high sensitivity.

Non-Significant Visual Effects

6A.4.16 A non-significant effect is more likely to occur where a combination of the variables results in the Proposed Scheme having a non-defining effect on the view or visual amenity or where changes affect a visual receptor that is of low sensitivity.

6A.5 ASSESSING CUMULATIVE LANDSCAPE AND VISUAL EFFECTS

- 6A.5.1 The assessment of cumulative effects is essentially the same as for the main assessment of the 'solus' or primary landscape and visual effects, in that the level of landscape and visual effect is determined by assessing the sensitivity of the landscape or visual receptor and the magnitude of change. Cumulative assessment, however, considers the magnitude of change posed by multiple development.
- 6A.5.2 A cumulative landscape or visual effect simply means that more than one type of development is present or visible within the landscape. Other forms of existing development and land use such as woodland and forestry, patterns of agriculture, built form, and settlements already have a cumulative effect on the existing landscape that is already accepted or taken for granted. These features often contribute strongly to the existing character, forming a positive or adverse component of the local



landscape. Landscapes however, will have a finite capacity for cumulative development, beyond which further new development would result in landscape character change.

- 6A.5.3 Types of cumulative effect are defined as follows:
 - Cumulative Landscape Effects: Where more than development may have an effect on a landscape designation or particular area of landscape character;
 - Cumulative Visual Effects: the cumulative or incremental visibility of similar types of development that may combine to have a cumulative visual effect. These can be further defined as follows:
 - Simultaneous or combined: where two or more developments may be viewed from a single fixed viewpoint simultaneously, within the viewer's field of view and without requiring them to turn their head:
 - Successive or repetitive: where two or more developments may be viewed from a single viewpoint successively as the viewer turns their head or swivels through 360°; and
 - Sequential: where a number of developments may be viewed sequentially or repeatedly at increased frequency, from a range of locations when travelling along a route within the LVIA Study Area.

6A.6 EVALUATION OF SIGNIFICANCE

- 6A.6.1 The matrix presented in **Table 6A-5** is used as a guide to illustrate the LVIA process. In line with the emphasis placed in GLVIA 3¹ upon the application of professional judgement, an overly mechanistic reliance upon a matrix is avoided through the provision of clear and accessible narrative explanations of the rationale underlying the assessment made for each landscape and visual receptor. Such narrative assessments provide a level of detail over and above the outline assessment provided by use of the matrix alone.
- 6A.6.2 The landscape and visual assessment unavoidably, involves a combination of quantitative and qualitative assessment and wherever possible cross references will be made to objective evidence, baseline figures and / or to photomontage visualisations to support the assessment conclusions. Often a consensus of professional opinion has been sought through consultation, internal peer review, and the adoption of a systematic, impartial, and professional approach. Importantly each effect results from its own unique set of circumstances and have been assessed on a case-by-case basis. The matrix should therefore be considered as a guide and any deviation from this guide will be clearly explained in the assessment.
- 6A.6.3 In accordance with the relevant EIA Regulations it is important to determine whether the effects, assessed as a result of the Proposed Scheme, are likely to be significant. Significant landscape and visual effects will be highlighted in bold in the text and in most cases, relate to all those effects that result in a 'Major or a 'Major / Moderate' effect as indicated in Table 6A-5.
- 6A.6.4 In some circumstances, 'Moderate' levels of effect also have the potential, subject to the assessor's opinion, to be considered as significant and these exceptions are also highlighted in bold and explained as part of the assessment, where they occur.
- 6A.6.5 White or un-shaded boxes in **Table 6A-5** indicate a non-significant effect. In those instances where there would be no effect, the magnitude has been recorded as 'Zero' and the level of effect as 'None'.



Table 6A-5 - Significance evaluation matrix applicable to the LVIA

		Landscape or Visual Sensitivity			
		High	Medium	Low	
change	High	Major (Significant)	Major/Moderate (Significant)	Moderate (Potentially Significant)	
Magnitude of landscape or visual change	Medium	Major/Moderate (Significant)	Moderate (Potentially Significant)	Moderate/Minor (Not Significant)	
landscape	Low	Moderate (Potentially Significant)	Moderate/Minor (Not Significant)	Minor (Not Significant)	
gnitude of	Very Low	Moderate/Minor (Not Significant)	Minor (Not Significant)	Negligible (Not Significant)	
Mag	Zero	None			

6A.7 TYPE OR NATURE OF EFFECT

6A.7.1 In accordance with the EIA Regulations the type or nature of effect is also described in terms of whether it is direct or indirect; its duration (temporary / permanent or reversible) cumulative; and whether the effect is positive, neutral or negative. Transboundary effects are not relevant to this assessment.

DIRECT AND INDIRECT EFFECTS

- 6A.7.2 Direct landscape effects relate to the host landscape and concern both physical and perceptual effects on the receptor.
- 6A.7.3 Indirect landscape effects relate to those landscapes and receptors which are separated by distance or remote from the development and therefore are only affected in terms of perceptual effects. The Landscape Institute also defines indirect effects as those which are not a direct result of the development but are often produced away from it or as a result of a complex pathway.
- 6A.7.4 Visual effects are generally all considered as direct effects. An indirect visual effect may however be used to define a visual effect on a view that is not in the direction of the main view of the viewer as described by the following examples:
 - Road users generally face the road directly ahead in the direction of travel and visual effects
 affecting those views may be described as direct effects. Where the visual effect is experienced
 in views oblique to the direction of travel they may be described as indirect.
 - Designed landscapes and vistas / viewpoints may be orientated in a particular direction and visual effects affecting those views may be described as direct effects. Where the visual effect is experienced in views oblique to the direction of the designed or main / primary view they may be described as indirect.



6A.7.5 Secondary effects (or effects subsequent to an initial effect) are covered in this assessment by indirect effects.

BENEFICIAL AND ADVERSE EFFECTS

- 6A.7.6 Large developments give rise to a wide range of opinions, from strongly adverse to strongly beneficial. However, LVIA is not an assessment of public opinion, although a precautionary approach has been taken, which assumes that the nature of the effects would be adverse or neutral unless otherwise stated.
- 6A.7.7 Guidance provided by the in GLVIA 3¹ on the nature of effect (i.e. beneficial or adverse) states that 'in the LVIA, thought must be given to whether the likely significant landscape and visual effects are judged to be positive (beneficial) or negative (adverse) in their consequences for landscape or for views and visual amenity', but it does not provide guidance as to how that may be established in practice. The nature of effect is therefore one that requires interpretation and, where applied, this involves reasoned professional opinion.
- 6A.7.8 In this assessment the nature of effects refers to whether the landscape and / or visual effect of the Proposed Scheme is positive or negative (herein referred to as 'beneficial' / 'neutral' or 'adverse').
- 6A.7.9 In relation to many forms of development, the LVIA will identify 'beneficial' and 'adverse' effects by assessing these under the term 'Nature of Effect'. The landscape and visual effects of large-scale infrastructure are difficult to categorise in either of these brackets as, unlike other aspects, there are no definitive criteria by which the effects can be measured as being categorically 'beneficial' or 'adverse'. In some aspects, such as noise or ecology, it is possible to quantify the effect in numeric terms, by objectively identifying or quantifying the proportion of a receptor that is affected and assessing the nature of that effect in justifiable terms. However, this is not the case in relation to landscape and visual effects where the approach combines quantitative and qualitative assessment.
- 6A.7.10 Generally, a precautionary approach is adopted, which assumes that significant landscape and visual effects will be weighed on the adverse side of the planning balance. Unless it is stated otherwise, the effects considered in the assessment will be considered to be adverse. Beneficial or neutral effects may, however, arise in certain situations and are stated in the assessment where relevant, based on the following definitions:
 - Beneficial effects contribute to the landscape and visual resource through the enhancement of desirable characteristics or the introduction of new, beneficial attributes. The development contributes to the landscape by virtue of good design or the introduction of new landscape planting. The removal of undesirable existing elements or characteristics can also be beneficial, as can their replacement with more appropriate components.
 - Neutral effects occur where the development fits with the existing landscape character or visual amenity. The development neither contributes to or detracts from the landscape and visual resource and can be accommodated with neither beneficial or adverse effects, or where the effects are so limited that the change is hardly noticeable. A change to the landscape and visual resource is not considered to be adverse simply because it constitutes an alteration to the existing situation.
 - Adverse effects are those that detract from the landscape character or quality of visual attributes experienced, through the introduction of elements that contrast, in a detrimental way, with the existing characteristics of the landscape and visual resource, or through the removal of elements that are key in its characterisation.



PROBABILITY OF EFFECT

6A.7.11 The probability of cumulative effects is variable. Those effects related to existing development and those under construction are considered as certain; effects related to development with planning consent are considered as likely. Development sites for which there is a submitted planning application are considered as uncertain with an even greater level of uncertainty attached to preplanning application sites.

6A.8 PRODUCTION OF VISUALISATIONS

6A.8.1 Visualisations (annotated photographs) are graphical images produced to assist and illustrate the LVIA. The methodology used for viewpoint photography and annotated photographs adopts the methods described in the Landscape Institute's Technical Guidance Note 06/19 Visual Representation of Development Proposals².

METHODOLOGY FOR BASELINE PHOTOGRAPHY

- 6A.8.2 Once a view has been selected, the location is visited, confirmed, and assessed in the field. The viewpoint location is micro-sited to avoid as far as reasonable foreground clutter and photographed during fair weather and light conditions. A photographic record is taken to record the view and the details of the viewpoint location and associated data are recorded to assist in the production of visualisations and to validate their accuracy.
- 6A.8.3 The following photographic information is recorded:
 - Date, time, weather conditions and visual range;
 - GPS recorded 12 figure grid reference accurate to ~5-10 m;
 - GPS recorded Above Ordnance Datum (AOD) height data;
 - The focal length of lens is confirmed.
- 6A.8.4 All photographs included in this assessment were recorded with a digital SLR camera set to produce photographs equivalent to that of a manual 35 mm SLR camera with a fixed 50 mm or 75 mm focal length lens as required.
- 6A.8.5 Whilst no two-dimensional image can fully represent the real viewing experience, the visualisation aims to provide a realistic representation of the Proposed Scheme, based on current information and visualisation methodology.

Weather Conditions

6A.8.6 GLVIA 3¹ para 8.22 states:

"In preparing photomontages, weather conditions shown in the photographs should (with justification provided for the choice) be either:

representative of those generally prevailing in the area; or

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² Landscape Institute (2019). Technical Guidance Note: Visual Representation of Development Proposals. (Online) Available at: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/09/LI_TGN-06-19_Visual_Representation.pdf



- taken in good visibility, seeking to represent a maximum visibility scenario when the development may be highly visible".
- 6A.8.7 In preparing visualisations for the LVIA, photographs were taken in favourable weather conditions. Weather conditions shown in the photographs for all viewpoints have, where possible, been taken during periods of 'very good' or 'excellent' visibility conditions, seeking to represent a maximum visibility scenario when the Proposed Scheme may be highly visible.

METHODOLOGY FOR PRODUCTION OF VISUALISATIONS

6A.8.8 Each view has been illustrated with an annotated baseline photograph indicating the Proposed Scheme. The photograph is of the existing view recorded in fair weather conditions and usually presented as a panorama that represents a 90° or 53.5° FoV photograph.

Baseline Photograph Production

- 6A.8.9 Photographs are then taken using a digital SLR camera in combination with a panoramic head equipped tripod. Detailed information is then recorded on site to enable the accurate alignment of the photographs with the wireline model (data such as: GPS grid co-ordinates; ground level information; compass bearings; and any other known references and viewpoint information).
- 6A.8.10 To create the baseline panorama, the photographs from the viewpoint are then digitally joined using Autopano Giga or PTGui software to form a planar or cylindrical projection image or panorama using computer software to remove 'barrel distortion' caused by the camera lens. There are practical limitations to shooting viewpoint photographs only in very good or excellent visibility and at particular times of day or from location that avoid foreground clutter or other vertical features such as telegraph poles, particularly where this is a true representation of the view from that viewpoint area.

Limitations of Visualisations

- 6A.8.11 The visualisations used in this LVIA are for illustrative purposes only and, whilst useful tools in the assessment, are not considered to be completely representative of what will be apparent to the human eye. The assessments are carried out from observations in the field and therefore may include elements that are not visible in the photographs.
- 6A.8.12 The visualisations of the Proposed Works have a number of limitations when using them to form a judgement on visual effect. These include:
 - A visualisation can never show exactly what a development will look like in reality due to factors such as: different lighting, weather and seasonal conditions which vary through time and the resolution of the image;
 - The images provided give a reasonable impression of the scale and the distance to the Proposed Works but can never be 100% accurate to the as constructed effect;
 - A static image cannot convey movement or other features such as the movement of water or the reflection from the sun;
 - The viewpoints illustrated are representative of views in the area but cannot represent visibility at all locations;
 - To form the best impression of the effects, these images are best viewed at the viewpoint location shown:
 - The visualisations must be printed and viewed at the correct size as indicated on the figures;
 - Images should be held flat at a comfortable arm's length. If viewing these images on a wall or board at an exhibition, stand at arm's length from the image presented to gain the best impression; and



It is preferable to view printed images rather than view images on screen. Images on screen should be viewed using a normal PC screen with the image enlarged to the full screen height to give a realistic impression.

PRINTING OF MAPS AND VISUALISATIONS

6A.8.13 All electronic visualisations and maps should be printed out and viewed at the correct scale as noted on the document.



Canon Court West Abbey Lawn Shrewsbury SY2 5DE

wsp.com