

The Lighthouse Green Fuels Order

Application Reference: EN0110025

Applicant: LGF Projects Limited

Appendix 13D: Landscape and Visual Impact Assessment Methodology

Document Reference: 6.3.22

Revision: 00

APFP Reg. 5(2)(a), 5(2)(l) and EIA Reg. 14

Document Information

Document Title	ES Appendix 13D: LVIA Methodology
Document Ref	6.3.22
Author	Arup

Revision record

00	Purpose	DCO Application Submission
	Date	July 2026

Information classification

Information Classification	Date	Reason
Public	September 2026	Proprietary information which will have no impact on the company if disclosed publicly

Contents

Abbreviations	1
1 Introduction	2
2 Assessment methodology.....	3
2.1 Establishment of baseline.....	3
Desk study.....	3
2.2 Fieldwork surveys.....	3
2.3 Assessment of landscape effects.....	4
Landscape baseline.....	4
2.4 Sensitivity of landscape receptors.....	6
2.5 Value attached to the landscape	6
2.6 Susceptibility of landscape receptors to change	10
2.7 Combining judgements to define the sensitivity of landscape receptors.....	11
2.8 Magnitude of landscape impacts.....	12
2.9 Assessment of visual effects.....	13
Visual baseline	13
2.10 Visual receptors and representative viewpoints	14
2.11 Sensitivity of visual receptors.....	16
2.12 Value attached to views	16
Susceptibility of visual receptors to change	18
2.13 Summarising the sensitivity of visual receptors.....	19
2.14 Magnitude of visual impacts.....	21
2.15 Significance of landscape and visual effects.....	23
References	25

Tables

Table 2.1 Establishing landscape value criteria	8
Table 2.2 Establishing landscape value criteria	10
Table 2.3 Sensitivity of landscape receptors criteria	11
Table 2.4 Magnitude of landscape receptors criteria	13
Table 2.5 Value attached to views criteria.....	18

Table 2.6	Susceptibility of visual receptors to change	19
Table 2.7	Sensitivity of visual receptors criteria	21
Table 2.8	Magnitude of visual impacts criteria	22
Table 2.9	Determining the significance of landscape and visual effects	23

Abbreviations

Abbreviation	In Full / Term
DCO	Development Consent Order
DTM	Digital Terrain Model
ELC	European Landscape Convention
ES	Environmental Statement
GLVIA	Guidelines for Landscape and Visual Assessment
LI	Landscape Institute
LCA	Landscape Character Areas
LLCA	Local Landscape Character Areas
LCT	Landscape Character Types
LVIA	Landscape and Visual Impact Assessment
LGF	Lighthouse Green Fuels
NPPF	National Planning Policy Framework
NPS	National Policy Statements
PINS	Planning Inspectorate
Ref	Reference
RSPB	Royal Society for the Protection of Birds
RVAA	Residential Visual Amenity Assessment
SAF	Sustainable Aviation Fuel
SoS	Secretary of State
TGN	Technical Guidance Note
VP	Viewpoint
ZTV	Zone of Theoretical Visibility

1 Introduction

- 1.1.1 This appendix to **Chapter 13: Landscape and Visual Impact Assessment (ES Volume I, Application Document Ref. 6.1)** sets out the methodology applied in the Landscape and Visual Impact Assessment (LVIA) for Lighthouse Green Fuels (LGF) project which comprises the construction, operation (including maintenance) and decommissioning of a second-generation Sustainable Aviation Fuel (SAF) Production Facility in Teesside, hereafter referred to as the 'Proposed Development'.
- 1.1.2 The methodology has been developed with particular regard to the Guidelines for Landscape and Visual Assessment (GLVIA3) [Ref 3] and the Notes and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment Third edition (GLVIA3) [Ref 4] as well as guidance listed in Table 13-3 in **Chapter 13: Landscape and Visual Amenity (ES Volume I, Application Document Ref. 6.1)**.

2 Assessment methodology

2.1 Establishment of baseline

Desk study

- 2.1.1 Reference has been made to the prevailing policy framework including the National Policy Statements (NPSs), marine policy, local plans and evidence base documents that identify any designated landscapes or features of characteristics of value and their relationship to the Proposed Development. Further detail is provided in **Appendix 13A: Landscape Baseline and Effects (ES Volume III, Application Document Ref. 6.3)**.
- 2.1.2 Other information sources referenced as part of the baseline review included 1:25,000 scale Ordnance Survey mapping, three-dimensional topographical data, and site photographs and aerial photography.
- 2.1.3 A detailed study of topography and hydrology has been undertaken and this is mapped in **Figure 13.2: Hydrography and Topography (ES Volume II, Application Document Ref. 6.2)**.
- 2.1.4 Designations relevant landscape and visual amenity have been mapped in **Figure 13.4: Relevant Designations (ES Volume II, Application Document Ref. 6.2)**.

2.2 Fieldwork surveys

- 2.2.1 Fieldwork surveys were undertaken in March and August 2025 and March 2026 by Chartered landscape architects to record the characteristics, features and views of the Site and the study area. The purpose of this fieldwork was to review the boundaries of Landscape Character Areas (LCA) and key characteristics defined in the published landscape character assessments and to identify, record and map characteristics of the landscape not covered by published landscape character assessments.
- 2.2.2 Fieldwork surveys were also used to identify visual receptors and representative viewpoints and to clarify the extent of views, taking account of intervening features such as buildings and vegetation.
- 2.2.3 This information has informed the LVIA and the proposed mitigation and enhancement measures embedded in the design of the Proposed Development.

2.3 Assessment of landscape effects

Landscape baseline

- 2.3.1 Landscape is defined by the European Landscape Convention [Ref 1] as *“an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.”*
- 2.3.2 Natural England’s ‘An Approach to Landscape Character Assessment’ [Ref 4] provides some useful context to the European Landscape Convention. It sets out the following five principles which apply to landscape character assessment:
- Landscape is everywhere and all landscape has character;
 - Landscape occurs at all scales and the process of Landscape Character Assessment can be undertaken at any scale;
 - The process of Landscape Character Assessment should involve an understanding of how the landscape is perceived and experienced by people;
 - A Landscape Character Assessment can provide a landscape evidence base to inform a range of decisions and applications; and
 - A Landscape Character Assessment can provide an integrating spatial framework- a multitude of variables come together to give us our distinctive landscapes.
- 2.3.3 The GLVIA3 [Ref 3] defines landscape receptors as *“aspects of the landscape resource that have the potential to be affected by a proposal”* (Landscape Institute and the Institute of Environmental Management and Assessment, 2013). Landscape receptors have been identified via a review of published landscape character assessments, maps and aerial photography, relevant planning policy and fieldwork surveys. A baseline description is then provided for each of the identified landscape receptors.
- 2.3.4 Landscape character is defined by GLVIA3 [Ref 3] as *“a distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.”* Landscape character assessment is defined within the glossary of GLVIA3 [Ref 3] as the *“process of identifying and describing variation in the character of the landscape and using this information to assist in managing change in the landscape. It seeks to identify and explain the unique combination of elements and features that make landscapes distinctive.”*

- 2.3.5 Point 5(1) of Landscape Institute Technical Guidance Note (LI TGN) 01/24 [Ref 4] states that *“it is not necessary to assess effects on every landscape character type or area identified by assessments at different levels for any development – the best scale of assessment for the project should be selected”* and that *“where existing assessments are too large or small scale for the nature of the development, supplementary assessment at the appropriate scale may be required and should draw from the assessment(s) available.”*
- 2.3.6 Published landscape character assessments at the national, regional and local level have been reviewed to identify Landscape Character Types (LCT) and LCAs. These are mapped in **Figures 13.5: Published Landscape Character Areas** and **13.6: Project Specific Landscape Character Areas (ES Volume II, Application Document Ref. 6.2)**. Point 5(1) of LI TGN 01/24 [Ref 4] notes that it is not necessary to assess effects on every LCT or LCA identified by assessments at different levels for any development, explaining that the best scale of assessment for the project should be selected.
- 2.3.7 The geographical extent of LCAs in published assessments at the national level are generally large and extend beyond the study area. As explained in paragraph 5.14 of GLVIA3 [Ref 3], *“broad-scale assessments at national or regional level can be helpful in setting the landscape context but are unlikely to be helpful on their own as the basis for LVIA”*. These have therefore been included to provide context but effects on these have not been assessed.
- 2.3.8 The key characteristics of published LCAs are set out in **Appendix 13A: Landscape Baseline and Effects (ES Volume III, Application Document Ref. 6.3)** to provide a clear audit trail back to the original studies. This information has then been critically reviewed to inform Local Landscape Character Areas (LLCA) which have been defined by the Applicant and are described in more detail below. Natural England’s ‘An approach to Landscape Character Assessment’ [Ref 4] notes the use and purpose of key characteristics, stating:

2.3.9 *“Key characteristics are those combinations of elements which help give an area its distinctive sense of place. If these characteristics change, or are lost, there will be significant consequences for the current character of the landscape. Key characteristics are particularly important in the development of planning and management policies. They are important for monitoring change and can provide a useful reference point against which landscape change can be assessed. They can be used as indicators to inform thinking about whether and how the landscape is changing and whether, or not, particular policies – for example – are effective and having the desired effect on landscape character.”*

2.3.10 The review of published landscape character assessments identified gaps in existing information relating to urban areas on the edge of the study area. Therefore, LLCAs have also been identified by the Applicant via desk study and fieldwork surveys to provide full coverage of the study area.

2.4 Sensitivity of landscape receptors

2.4.1 Paragraph 5.39 of GLVIA3 [Ref 1] states that *“landscape receptors need to be assessed firstly in terms of their sensitivity, combining judgements of their susceptibility to the type of change or development proposed and the value attached to the landscape”*.

2.4.2 Judging landscape sensitivity is thus a two-part process of:

- Value attached to the landscape – relates to the existing landscape and has been determined at the baseline stage in line with paragraph 5.19 of GLVIA3 [Ref 1], which states that *“as part of the baseline description the value of the potentially affected landscape should be established”*; and
- Susceptibility to change – which is considered in relation to the Proposed Development.

2.5 Value attached to the landscape

2.5.1 Landscape Institute Technical Guidance Note (TGN) 02/21: Assessing landscape value outside national designations [Ref 5] defines landscape value as *“the relative value or importance attached to different landscapes by society on account of their landscape qualities.”*

2.5.2 For assessing landscape value outside national designations, LI TGN 02/21 [Ref 5] is the primary source of guidance. This guidance recommends that indicators of value should be reviewed on a case-by-case basis, taking into account what they contribute (positively or negatively) to a specific landscape and that once evidence for each factor has been collated and assessed, an overall judgement should be made by considering the overall 'weight of evidence'. The approach to assessing the value attached to the landscape has followed a three-stage process:

- Stage 1: identify if the landscape is covered by any landscape designations;
- Stage 2: consider each of the factors listed in Table 2.1 below which have been developed with reference to Table 1 of TGN 02/21 [Ref 5] and are pertinent and most important to understanding its value; and
- Stage 3: make an assessment the value attached to the landscape and assign value based on a five-point scale, clearly articulating the reasons for these judgements.

2.5.3 An overall conclusion will be drawn on the value attached to the landscape for each landscape receptor considering the overall weight of evidence.

2.5.4 The methodology set out in Section 10.9 of the Scoping Report referred to an assessment of whether landscape receptors could be considered 'valued landscape' in the context of paragraph 187(a) of the now superseded National Planning Policy Framework (NPPF) published in December 2024 [Ref 6]. The current version of the updated NPPF, published in August 2026 [Ref 7], has removed references to valued landscapes and therefore Stage 4 has been removed from the methodology for the LVIA.

Table 2.1 Establishing landscape value criteria

Stage 1 – Landscape designations	Stage 2 - Define landscape value factors with reference to TGN 02/21 [Ref 4]	Stage 3	
		Criteria	Description
Landscape with statutory status or national policy protection: National Park, National Landscapes, or World Heritage Sites Local landscape designation, such as Special Landscape Area or Area of Great Landscape Value, supported by policy and a detailed evidence base. No relevant designations.	Natural heritage - Landscape with clear evidence of ecological, geological, geomorphological or physiographic interest which contribute positively to the landscape. Cultural heritage - Landscape with clear evidence of archaeological, historical or cultural interest which contribute positively to the landscape. Landscape condition - Landscape which is in a good physical state both with regard to individual elements and overall landscape structure. Associations - Landscape which is connected with notable people, events and the arts. Distinctiveness - Landscape that has a strong sense of identity.	Very High	A designated landscape with statutory status (National Park or National Landscapes).
		High	A locally designated landscape supported by a detailed evidence base or with other strong indicators of value, which may include other relevant designations such as ancient woodland or conservation areas, with identified quality in the development plan or evidence base.
		Medium	Unlikely to be a designated for landscape quality but may exhibit some indicators of value which are identified in the development plan or evidence base and are important at the community level.

Stage 1 – Landscape designations	Stage 2 - Define landscape value factors with reference to TGN 02/21 [Ref 4]	Stage 3	
		Criteria	Description
	Recreational - Landscape offering recreational opportunities where experience of landscape is important. Perceptual (scenic) - Landscape that appeals to the senses, primarily the visual sense. Perceptual (wildness and tranquillity) - Landscape with a strong perceptual value notably wildness, tranquillity and/or dark skies Functional - Landscape which performs a clearly identifiable and valuable function, particularly in the healthy functioning of the landscape.	Low	Not designated for landscape quality and likely to exhibit few indicators of value which are identified in the development plan or evidence base.
		Very low	A landscape dominated by industry or infrastructure or which is damaged or degraded landscape, not designated for landscape quality and not likely to exhibit indicators of value which are identified in the development plan or evidence base.

2.5.5 National Policy Statement NPS EN-1 [Ref 8], which is the primary policy used by the relevant Secretary of State (SoS) to determine applications for projects requiring a Development Consent Order (DCO), also recognises that there are landscapes that may be highly valued locally but which are outside nationally designated areas. Paragraph 5.10.12 of EN-1 states that *“Where a local development document in England or a local development plan in Wales has policies based on landscape or waterscape character assessment, these should be paid particular attention. However, locally valued landscapes should not be used in themselves to refuse consent, as this may unduly restrict acceptable development.”*

2.6 Susceptibility of landscape receptors to change

2.6.1 GLVIA3 paragraph 5.40 [Ref 3] defines the susceptibility to change of landscape receptors as:

2.6.2 *“the ability of the landscape receptor (whether it be overall character or condition of a particular landscape type or area, or an individual element and/or features, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.”*

2.6.3 The Landscape Institute (LI) clarified in point 5(4) of TGN 01/24 [Ref 4] that the susceptibility of landscape receptors will vary with the type or nature of change, relating the type of development and the relative size of the development. It goes on to state that *“relevant criteria will be dependent upon the development type being considered and should be tailored to the project.”*

2.6.4 The features and characteristics which are more or less susceptible to the type of changes proposed have been set out for each LCA. The narrative provides a clear explanation based upon analysis of the landscape receptor and the extent to which it is able to accommodate the type of change arising from the specific proposal. The susceptibility to change has then been categorised with reference to the criteria in Table 2.2.

Table 2.2 Establishing landscape value criteria

Criteria	Description
Very high	The type of change arising from the specific proposal are very likely to lead to undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.

Criteria	Description
High	The type of change arising from the specific proposal are likely to lead to undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.
Medium	The type of change arising from the specific proposal may lead to undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.
Low	The type of change arising from the specific proposal are unlikely to lead to undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.
Very low	The type of change arising from the specific proposal are very unlikely to lead to undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.

2.7 Combining judgements to define the sensitivity of landscape receptors

2.7.1 The sensitivity of each LCA has been defined by combining professional judgements on the value attached to the landscape and its susceptibility to change and is supported by a clear narrative. Reference has been made to the criteria set out in Table 2.3.

Table 2.3 Sensitivity of landscape receptors criteria

Criteria	Description
Very high	Landscapes with statutory status or national policy protection with very limited ability to accommodate the type of change without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.
High	Landscapes which may be locally designated or otherwise supported by a detailed evidence base or landscape with other strong indicators of value with limited ability to accommodate the type of change without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.
Medium	Landscapes which are unlikely to be a designated for landscape quality but may exhibit some indicators of value and which may have some ability to accommodate the type of change without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.
Low	Not designated for landscape quality and likely to exhibit few indicators of value and likely to accommodate the type of change no or limited undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.

Criteria	Description
Very low	Landscapes of very low value able to accommodate the type of change without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.

2.8 Magnitude of landscape impacts

- 2.8.1 Paragraph 3.28 of GLVIA3 [Ref 3] notes that the magnitude is informed by combining considerations relating to the “scale, extent and duration” of impacts. This includes the geographical extent of influence, the spatial extent of the impact, the level of integration of new features with existing elements, its duration and degree to which the impact is reversible.
- 2.8.2 In summarising the magnitude of landscape impacts, reference has been made to the following:
- Size or scale - the degree to which key characteristics or features identified in the baseline would change, the proportion of the total extent that this represents and the contribution of that element to the character of the landscape. It is also influenced by the degree to which aesthetic or perceptual aspects of the landscape would be altered and whether this would change the key characteristics of the landscape;
 - Geographical extent – the area over which the change would occur. For example, whether the effects of the Proposed Development are perceived over a large or very localised area;
 - Duration – the time over which the change would occur, set out on the following scale: short-term (0-5 years), medium term (5-15 years), or long-term (over 15 years); and
 - Reversibility - related to whether the change can be reversed and is reported as reversible, partially reversible or permanent, for example effects arising from presence of construction traffic will cease at the end of construction and therefore is considered to be reversible, whereas effects arising from presence of new built development could be partially reversible or permanent.
- 2.8.3 LI TGN 01/24 [Ref 4] suggests that the size/scale of impacts is likely be the most important factor (3(3)). In point 5(11) it goes on to state that geographical extent should reflect the relevance of the location and that the spread of effects should be used as a ‘modifier’ to the scale of effect so that it does not understate the magnitude of effects for extensive receptors such as large character areas or designations. This is the approach taken in this assessment.

2.8.4 The criteria set out in

2.8.5 Table 2.4 have been referred to in determining the magnitude of landscape impacts.

Table 2.4 Magnitude of landscape receptors criteria

Magnitude of landscape impacts	Criteria
Very high	Substantial changes to key characteristics across most of the area or to unique and distinctive features at a local level. May be longer-term impacts, permanent or reversible.
High	Changes to the character of the landscape across large parts of the area or to distinctive features at a local level. May be longer-term impacts, permanent or reversible
Medium	Changes to the character of the landscape across parts of the area or to some existing features at a local level. May be medium term impacts, permanent or reversible.
Low	Slight change to landscape character or landscape features across a small area. May be short- to medium term impacts, permanent or reversible.
Very low	Barely perceptible change to the landscape receptor or may impact a limited area or no key characteristics. May be short-term impacts, permanent or reversible.

2.8.6 There may be cases where there will be no impacts on a receptor, for example where the design has been changed to avoid such impacts. In such cases this is recorded as no change.

2.9 Assessment of visual effects

Visual baseline

2.9.1 Visual receptors are defined in GLVIA3 [Ref 3] as “*individuals and/or defined groups of people who have the potential to be affected by a proposal*”. This includes, for example, local communities, users of public rights of way and motorists.

2.9.2 Computer-generated Zones of Theoretical Visibility (ZTV) have been prepared and these are presented in **Figures 13.7: Zone of Theoretical Visibility and Proposed Viewpoints (ES Volume II, Application Document Ref. 6.2)**. GLVIA3 [Ref 3] defines as ZTV as “*a map, usually digitally produced, showing areas of land within which a development is theoretically visible.*”

- 2.9.3 ZTVs do not indicate how much of the Proposed Development will be visible. The purpose of the ZTV is to:
- Identify the theoretical extents of visibility of the Proposed Development i.e., areas from which it would not be visible and areas from which it could potentially appear in existing views;
 - Assist in the identification of the study area;
 - Identify areas of landscape and visual receptors likely to be affected by the Proposed Development;
 - Identify locations that are representative of the views experienced by visual receptors at different locations within the study area (representative viewpoints); and
 - Inform the design, including the extent and type of proposed mitigation.
- 2.9.4 ZTVs have been modelled using the 'Viewshed' tool in ESRI ArcPro GIS Software.
- 2.9.5 A bare earth ZTV was prepared using Digital Terrain Model (DTM) data with a resolution of 1m. This ZTV represent a worst-case scenario as it does not include features such as existing buildings or vegetation which can screen or filter views.
- 2.9.6 For all of ZTVs an assumed viewing height of 1.7m above ground level has been used to simulate the eye level of a person at the top of the range set out in paragraph 6.11 of GLVIA3 [Ref 3] to represent the worst-case scenario.

2.10 Visual receptors and representative viewpoints

- 2.10.1 Visual receptors are defined in GLVIA3 [Ref 3] as "*individuals and/or defined groups of people who have the potential to be affected by a proposal.*" This includes, for example, local communities, users of public rights of way and motorists.
- 2.10.2 Visual receptors likely to experience views of the Proposed Development have been identified through interrogation of the ZTV, desktop analysis of maps and Google Earth, and fieldwork surveys. They have subsequently been categorised into the following types:
- Local communities;
 - People working in the area;
 - People travelling through the area; and
 - People using parks and open spaces.

- 2.10.3 The LI clarified the extent to which the views of residents fall within the scope of LVIA in 6(1) of LI TGN 01/24 [Ref 4]. It explains that views from houses and individual properties are a matter of private amenity, noting that it is an established planning principle that there is no right to a view. It states that *“LVIA should consider views from local communities focusing on the way that a community currently experiences views from public locations such as streets and open spaces and how those will change”* and that *“it may be helpful for an LVIA to comment on changes to views that will be experienced from groups of properties, or in some cases individual properties, if these changes are likely to be significant.”* The LVIA has not identified residual effects on visual receptors which would be major adverse (the highest level of significance) and therefore the threshold for residential visual amenity has not been breached and a Residential Visual Amenity Assessment (RVAA) is not required.
- 2.10.4 Where a collection of visual receptors in the same category are likely to experience similar views, they have been grouped. Representative viewpoints have been identified within the ZTV to assist in describing the baseline view and the effects likely to be experienced by visual receptor groups. These representative viewpoints were agreed with Stockton-on-Tees Borough Council (STBC) on 12 November 2025 and have been selected on the basis that they cover a range of viewing distances, elevations and orientations from locations with different viewing experiences of the Proposed Development. The selection of representative viewpoints has been informed by the following criteria:
- Accessibility to the public;
 - Number and sensitivity of people who can be affected;
 - Viewing direction, distance, openness and elevation; and
 - Nature of the viewing experience.
- 2.10.5 Photographs were taken during fieldwork surveys in summer 2025. These were presented as annotated photographs to help demonstrate the nature of baseline views including the extent of existing screening. Visualisations are presented for VP7 at RSPB Saltholme and VP9 at South Gare. To show the maximum parameters of the Proposed Development wirelines of the Proposed Development have been prepared. Visualisations showing an indicative design have been prepared for the same viewpoints. Baseline photography and visualisations are shown on **Figures 13.8 - 13.17: Photosheets and Visualisations (ES Volume II, Application Document Ref. 6.2).**

2.11 Sensitivity of visual receptors

2.11.1.1 Paragraph 6.31 of GLVIA3 [Ref 3] states that “*each visual receptor, meaning the particular person or group of people likely to be affected at a specific viewpoint, should be assessed in terms of both their susceptibility to change in views and visual amenity and also the value attached to particular views.*” The sensitivity of visual receptors results from a combination of parameters, such as:

- The activity/occupation/ pastime of the receptors at particular locations;
- The extent to which their attention or interest may be focused on the views; and
- The visual amenity they experience.

2.11.2 Consideration has been given to the:

- Location, focus and orientation;
- Features or characteristics of value within the view;
- Principal or secondary interests;
- Static or kinetic nature of views; and
- Duration of the view.

2.12 Value attached to views

2.12.1 A three-stage process has been used to determine the value attached to views. This relates to the features and characteristics of the baseline landscape within the view and other indicators of value, for example reference in policy, guidebooks, literature or art.

- **Stage 1:** identify if the view or the landscape within the view is covered by any relevant policy or designations and note features and characteristics of value with reference to the landscape baseline;
- **Stage 2:** identify if the view is identified on maps, is likely to be from a popular visitor location or has historical or cultural importance or associations; and
- **Stage 3:** determine the value attached to the view with reference to the criteria provided in

- Table 2.5 using the evidence from Stages 1 and 2.

Table 2.5 Value attached to views criteria

Stage 3: Criteria	Description
Very high	Views within or across a nationally or internationally designated landscapes and/or specific views designated in national or regional policy. Views are likely to have few or no detracting features and which may also have strong cultural associations supported by evidence, which could include links to historical events or people, representation in art or literature, for example.
High	Views within or across regionally or locally designated landscapes, other or landscapes with strong indicators of value, or views identified in the development plan or evidence base. Views are likely to have few or no detracting features and may also have some cultural associations supported by strong evidence.
Medium	Views across landscapes which are unlikely to be designated but may exhibit some indicators of value which are identified in the development plan or evidence base and are important at the community level. Views may have some detracting features and cultural associations supported by evidence.
Low	Views across landscapes which are not designated for landscape quality and likely to exhibit few indicators of value which are identified in the development plan or evidence base. Views are likely to have some detracting features and lack cultural associations supported by evidence.
Very low	View across landscapes which are neither designated, nor identified in the development plan or evidence base, and without cultural associations. The landscape in the view is in poor condition or notably detracts from the experience of the view.

Susceptibility of visual receptors to change

- 2.12.2 The sensitivity of visual receptors is also dependent upon their susceptibility to changes in views and the visual amenity they experience.
- 2.12.3 Paragraph 6.32 of GLVIA3 [Ref 3] explains that *“the susceptibility of different visual receptors to changes in views and visual amenity is mainly a function of:*
- a) The occupation or activity of people experiencing the view at particular locations; and*
 - b) The extent to which their attention or interest may therefore be focussed on the views and the visual amenity they experience at particular locations.”*

2.12.4 GLVIA3 [Ref 3] notes that visual receptors “*most susceptible to change*”, include local communities and visitors engaged in outdoor recreation “*whose attention or interest is likely to be focused on the landscape and on particular views*” (paragraph 6.33).

2.12.5 Table 2.6 sets out the criteria referred to in determining the susceptibility of visual receptors to the Proposed Development.

Table 2.6 Susceptibility of visual receptors to change

Classification	Description
Very high	Visitors to nationally or internationally designated landscapes, particularly at specific viewpoints or viewing places, where views of the landscape are fundamental to the experience. People engaged in specific activities for enjoyment of dark skies.
High	Residents of local communities. Visitors to tourist hotspots, heritage assets or other attractions outside of nationally or internationally designated landscapes, particularly at specific viewpoints or viewing places, where views of the landscape are important to the experience. People engaged in outdoor recreation whose attention or interest is likely to be focussed on the landscape and on particular views, for example those using promoted walking and cycling routes. People travelling along promoted scenic routes.
Medium	People engaged in outdoor recreation or travelling along public rights of way or local roads, which are not promoted routes but where an appreciation of the surrounding landscape are relevant to the experience. People working outdoors.
Low	People engaged in outdoor sport or recreation which does not involve or depend upon appreciation of views of the landscape People travelling on major road, rail or other transport routes which are not recognised as scenic routes.
Very low	People working indoors.

2.13 Summarising the sensitivity of visual receptors

The sensitivity of visual receptors is based on professional judgement informed by the criteria in

- 2.13.1 Table 2.7, considering the value attached to views and susceptibility of visual receptors to the changes proposed.

Table 2.7 Sensitivity of visual receptors criteria

Criteria	Description
Very high	Activity where views are fundamental to the experience and are related to landscapes with national or international designation and with few or no detracting features and which may also have strong cultural associations supported by evidence.
High	Activity resulting in a particular interest or appreciation of the view and/or views within or across regionally or locally designated landscapes, other or landscapes with strong indicators of value, or views identified in the development plan or evidence base with few or no detracting features and may also have some cultural associations supported by strong evidence.
Medium	Activity resulting in a general interest or appreciation of the and/or a view, likely to exhibit some indicators of value which are identified in the development plan or evidence base and are important at the community level.
Low	Activity where interest or appreciation of the view is secondary to the activity or the period of exposure to the view is limited, and/or views across landscapes which are not designated for landscape quality and likely to exhibit few indicators of value and likely to have some detracting features and lack cultural associations supported by evidence.
Very low	Activity where interest or appreciation of the view is inconsequential to their activity, and/or across landscapes which are neither designated, nor recognised in policy, and without cultural associations or is in poor condition or notably detracts from the experience of the view.

2.14 Magnitude of visual impacts

- 2.14.1 The magnitude of visual impacts relates to the extent to which the baseline view would change as a result of the Proposed Development. This assessment has been made with reference to the photographs (and visualisations) from the representative viewpoints shown and illustrated in **Figures 13.8 – 13.17: Photosheets and Visualisations (ES Volume II, Application Document Ref. 6.2)**.
- 2.14.2 Paragraph 3.28 of GLVIA3 [Ref 3] notes that magnitude is informed by combining considerations relating to the “*scale, extent and duration*” of impacts. This includes the geographical extent of influence, the spatial extent of the impact, the level of integration of new features with existing elements, its duration and degree to which the impact is reversible.
- 2.14.3 Reference has been made to the following in summarising the magnitude of visual impacts:
- Size and scale – loss of existing features or addition and integration of new features and the time over which it will be experienced and whether views will be full, partial or glimpsed;

- Geographical extent – the angle of view in relation to the main activity of the receptor, the distance of the viewpoint from the Proposed Development and the extent of the area over which the changes would be visible, including whether views are fixed or sequential; and
- Duration and reversibility – the time over which the change would occur, set out on the following scale: short-term (0-5 years), medium term (5-15 years), or long-term (over 15 years).

2.14.4 LI TGN 01/24 [Ref 4] suggests that the size/scale of impacts is likely be the most important factor (3(3)). In point 5(11) it goes on to suggest that geographical extent should reflect the relevance of the location and that the spread of effects should be used as a 'modifier' to the scale of effect so that it does not understate the magnitude of effects for extensive receptors such as large character areas or designations. This is the approach taken in this assessment.

2.14.5 The criteria set out in Table 2.8 have been referred to in determining the magnitude of visual impacts.

Table 2.8 Magnitude of visual impacts criteria

Criteria	Description
Very high	The Proposed Development will result in extensive changes to the character and composition and will become the dominant feature of the landscape within the view. There may be longer term impacts, permanent or reversible.
High	The Proposed Development will change the character and composition of large parts of the landscape within the view. There may be longer term impacts, permanent or reversible.
Medium	The Proposed Development will change the character and composition of discrete parts of the landscape within the view. There may be medium or longer-term impacts, permanent or reversible.
Low	The Proposed Development will cause small changes to the character and composition of the landscape within the view. There may be short to medium term impacts, permanent or reversible.
Very low	The Proposed Development will cause barely perceptible changes in the character and composition of the landscape within view. May be short term impacts, permanent or reversible.

2.14.6 There may be cases where there will be no impacts on a receptor, for example where the design has been changed to avoid such impacts. In such cases this is recorded as no change.

2.15 Significance of landscape and visual effects

- 2.15.1 The approach to determining the significance of landscape effects and visual effects and whether these effects are considered significant in Environmental Impact Assessment (EIA) terms will be the same.
- 2.15.2 Judgements on the sensitivity of each receptor and the magnitude of impact have been combined to establish the level of effect and this has informed whether effects are considered significant in EIA terms. There are important distinctions between these two terms:
- Level of effect relates to the combination of the sensitivity of the receptor and the magnitude of impact, with reference to the matrix set out in Table 2.9 below; and
 - Significant effects are those which are considered most important in the decision-making process. As a general rule, an effect in this LVIA is considered significant in EIA terms if the level of effect is major or moderate. All other effects have been categorised as not significant.
- 2.15.3 As noted in 3(6) of LI TGN 01/24 [Ref 4], LVIA is a means of documenting professional judgement, rather than a formulaic process. Table 2.9 has been used to guide judgements on the relationship between the sensitivity of a visual receptor, the magnitude of impact and the resulting level of effect. Where conclusions differ from this guide, a reasoned explanation is provided in the assessment text.

Table 2.9 Determining the significance of landscape and visual effects

		Magnitude of impact				
		Very high	High	Medium	Low	Very low
Sensitivity	Very high	Major	Major	Major or Moderate	Moderate	Moderate or Minor
	High	Major	Major or Moderate	Moderate	Moderate or Minor	Minor
	Medium	Major or Moderate	Moderate	Moderate or Minor	Minor	Minor or Negligible
	Low	Moderate	Moderate or Minor	Minor	Minor or Negligible	Negligible
	Very low	Moderate or Minor	Minor	Minor or Negligible	Negligible	Negligible

- 2.15.4 The identification of the likely significant effects on landscape and visual receptors has relied on detailed analysis and the professional judgement of competent experts, and consultation with stakeholders. Point 3(7) of LI TGN 01/24 [Ref 4] states that “*the level of effect and whether it will have a positive or negative (or neutral) consequence are independent of each other*”. Whether effects are adverse, beneficial or neutral has determined by considering the way in which the changes are likely to affect the baseline:
- Adverse effects are likely to occur where the Proposed Development introduces new elements or changes which are discordant or intrusive resulting in a deterioration to existing character or valued features of the landscape or of views and visual amenity;
 - Beneficial effects are likely to occur where the Proposed Development enhances the character of the landscape or existing views; and
 - Neutral has been used to describe a categorisation of effect. Paragraphs 5.37 and 6.29 of GLVIA3 [Ref 3] state that is possible for effects to be neutral in their consequences for landscape and for visual receptors. Where a judgement of neutral effects has been reached, reference has been made to the contribution of the Proposed Development to the baseline and acknowledging the positive and negative aspects which have been considered.
- 2.15.5 Where the assessment has concluded that there will be no impacts on a receptor, this is reported as no effect. This may, for example, be a consequence of changes to the design which has avoided impacts on receptors identified at the scoping stage.
- 2.15.6 Residual effects are those which remain even with embedded or primary mitigation at construction and year 1 of operation and which cannot be further mitigated by design or other measures in this time period.

References

- Ref 1 Council of Europe. The European Landscape Convention (ELC), 2000 Ref 10.8: UK Government (2008) Town and Country Planning Act. Available online: <https://rm.coe.int/european-landscape-convention-book-text-feb-2008-en/16802f80c6> [Accessed November 2025].
- Ref 2 Natural England (2014) An Approach to Landscape Character Assessment. Available online: <https://assets.publishing.service.gov.uk/media/5aabd31340f0b64ab4b7576e/landscape-character-assessment.pdf> [Accessed November 2025]
- Ref 3 Landscape Institute and the Institute of Environmental Management and Assessment. The Guidelines for Landscape and Visual Assessment (GLVIA). 3rd edition. Oxon: Routledge, 2013.
- Ref 4 Landscape Institute (2024) Notes and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment Third edition (GLVIA3). Landscape Institute Technical Guidance Note LITGN-2024-01. 2024. Available online: https://www.landscapeinstitute.org/wp-content/uploads/2024/08/LITGN-2024-01-GLVIA3-NC_Aug-2024.pdf [Accessed November 2025].
- Ref 5 Landscape Institute (2021) Assessing landscape value outside national designations, Technical Guidance Note 02/21. Available online: <https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2021/05/tgn-02-21-assessing-landscape-value-outside-national-designations.pdf> [Accessed November 2025].
- Ref 6 Ministry of Housing, Communities & Local Government (2024) National Planning Policy Framework. Available online: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [Accessed November 2025].
- Ref 7 Ministry of Housing, Communities & Local Government (2026) National Planning Policy Framework. Available online: <https://www.gov.uk/guidance/national-planning-policy-framework> [Accessed August 2026].
- Ref 8 Department for Energy Security and Net Zero (2025) Overarching National Policy Statement (NPS) for Energy (EN-1). Available online: <https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1-2025> [Accessed July 2026].

