



**Installation of a solar array, substation and associated
works forming an extension at Blythe Solar Farm,
Upper Tean, Staffordshire, ST10 4JW**

Landscape and Visual Impact Assessment

Prepared for Innova Renewables Developments Limited

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1 Introduction

- 1.1 Corylus Planning and Environmental Ltd has been commissioned by Innova Renewables Developments Limited (the applicant) to undertake a Landscape and Visual Impact Assessment (LVIA) to accompany a Full Planning Application for the development of a solar farm extension to a consented solar farm development (ref: SMD/2022/0160) on land at Blythe House Farm, c.1.5km to the south-west of Upper Tean in Staffordshire, ST10 4JW.
- 1.2 The proposed site is located in open countryside, on pastoral farmland within the valley of the River Blithe, approximately 12km to the east / south-east of the city of Stoke-on Trent.
- 1.3 The Proposed Development comprises the erection of solar photovoltaic (PV) arrays and relocation of the previously approved substation (see **Figure 10** in **Appendix A**). The total site area is approximately 24 hectares. This will form an extension to the existing planning consent at Blythe House Farm for a solar farm (known as “Blythe Solar Farm”) which will occupy 42 hectares of land to the immediate north and north-west to the proposed extension site.
- 1.4 This LVIA assesses the baseline conditions of the site and surrounding area and considers the effects of the Proposed Development upon the landscape character and visual amenity of the site and receptors in the surrounding countryside.
- 1.5 The LVIA should be read in conjunction with the Planning Application drawings and the Planning Statement prepared by Corylus Planning & Environmental Ltd.

2 Scope of the Report and Assessment Methodology

Objectives and Scope of the Assessment

- 2.1 The aim of this report is to assess the qualities and value of the existing landscape resource and the visual amenity of the site and its surrounding area; to describe the development proposals in their landscape context and then to predict and evaluate the landscape and visual effects that may arise from the proposed development.
- 2.2 Landscape and visual impacts are independent but inter-related issues. Landscape impact assessment aims to determine the likely changes in the physical landscape resulting from a given development and to evaluate the significance of these changes in relation to their effects upon both the quality and character of the landscape. Visual impact assessment predicts the appearance of these physical changes within the landscape and their effects upon specific viewpoints or visual receptors, such as the occupants of residential properties and the users of roads, public rights of way or other public open spaces.
- 2.3 The overall objectives of the landscape and visual assessment are to:
 - describe and evaluate the existing landscape resource and visual amenity of the site and the surrounding area that may be affected by the development proposals;

- determine the sensitivity and value of the existing landscape resource and its capacity to accept change.
- identify and determine the nature and extent of any direct effects of the development upon physical components within the landscape, the introduction of new or uncharacteristic features into the landscape and the effect of these changes upon the landscape character of the site and surrounding area.
- determine the extent to which the development will be visible in the wider landscape.
- locate the key visual receptors, determine the sensitivity of these receptors and assess the likely changes in views that may result from the development.
- evaluate the magnitude and significance of effects upon both visual receptors and the overall character and quality of the landscape.
- determine and evaluate any cumulative impacts that may be caused by the proposed development in relation to other known developments of a similar nature in the surrounding area.
- determine potential measures to reduce or mitigate the impacts of the proposed development.

2.4 The assessment of the effects of the proposed development has been undertaken in relation to the installation of a solar farm extension, as described in the Planning Statement and as illustrated on the planning application drawings.

Assessor Qualification and Reference Material

2.5 This landscape and visual impact assessment (LVIA) has been undertaken by Andrew Woolley of Corylus Planning & Environmental Ltd, a chartered landscape architect (CMLI) with significant experience of landscape and visual assessment across a range of development sectors. Andrew has extensive knowledge of the site and surrounding area having undertaken the LVIA for the approved Blythe Solar Farm site.

2.6 The methodology used for undertaking this assessment is attached at **Appendix D**. This methodology accords with relevant professional standards and guidelines, including the 'Guidelines for Landscape and Visual Impact Assessment' (*Landscape Institute and the Institute of Environmental Management and Assessment, 3rd Edition 2013*); and 'An Approach to Landscape Character Assessment' - Second Edition (published by *Natural England in 2018*).

2.7 This report makes reference to published landscape character assessments and other authoritative publications, in order to seek consensus and minimise subjectivity in the assessment of the existing landscape.

Scope of Baseline Studies

- 2.8 Baseline studies were undertaken to determine the significance of the development site in the context of the wider landscape and to establish a benchmark against which any potential changes in landscape character and visual amenity could be measured. The baseline studies included a desktop review of relevant designations, planning policies and published character assessments relating to the site and surrounding area. In addition, an assessment was carried out to establish the potential zones of visual influence of the development site by undertaking a computer-generated Zone of Theoretical Visibility (ZTV) analysis. The ZTV analysis employed a Digital Surface Model which takes account of visual obstructions above the land surface such as buildings, woodlands and hedgerows. Ordnance Survey maps and aerial photographs were also assessed to establish the location of potential visual receptors such as settlements, standalone residential properties, roads, public rights of way and other areas of public access.
- 2.9 Field survey work was also carried out to verify and expand upon information gathered during the desktop assessment. A walk-over survey and assessment of the site and the surrounding landscape was undertaken on the 8th of June 2023. The weather conditions on the day of the site visit were dry with bright sunshine, and visibility was good over a distance of several kilometres. Previous visits to the site and local area had been undertaken by the assessor in 2020 and 2021 in order to carry out a landscape and visual assessment for the consented Blythe Solar Farm.
- 2.10 The field studies comprised a landscape assessment to identify and analyse the physical elements and features within the landscape which contribute to the quality, condition and character of the site and that of the wider landscape setting, and a visual assessment to record the extent and nature of views into the site from a range of visual receptors at varying distances within a potential zone of visual influence.
- 2.11 As part of the field assessment, a photographic survey was carried out to record representative views of the site from selected receptors within the zone of theoretical visibility, including settlements, residential properties, roads, public rights of way and other public access areas. Where direct access to residential properties or other potential viewpoints were not available, photographs of the site area were taken from nearby roads or footpaths to provide a similar representative view. In all instances, photographs were taken using a digital SLR camera with a 50mm lens (with a full-frame sensor) and fitted with an integral GPS device to pinpoint the exact location of the photographs taken. All photography was undertaken in accordance with the Landscape Institute's Technical Guidance Note 09/19.

The Assessment Study Area

- 2.12 The assessment study area was initially established by a desk top analysis and was then verified by the subsequent visit to the site and surrounding area. The field assessments showed that the extent to which the site is visible in the surrounding landscape is generally influenced by landform and the degree of enclosure provided by hedgerows and woodland plantations.

- 2.13 Considering the size of the proposed development, the potential screening effects provided by local vegetation and topography, and the potential for cumulative landscape and visual effects caused by other similar development within the immediate area, it was deemed that the overall study area should encompass a 2.5km radius around the application site.

Evaluation of Landscape and Visual Impacts

- 2.14 The significance of both landscape and visual impacts was evaluated by assessing the sensitivity of the landscape and visual receptors in combination with the likely magnitude of landscape or visual change brought about by the proposed development. The criteria for the evaluation of receptor sensitivity and the magnitude of landscape and visual effects are given in Tables 1 to 4 in **Appendix D**. The evaluation of impact significance has generally been determined with reference the matrix set out in Table 5 in **Appendix D**.
- 2.15 However, the evaluation of receptor sensitivity and the magnitude of landscape and visual effects involves a degree of professional judgement in balancing the relationship between these criteria to determine the overall significance of impacts.
- 2.16 The assessments made within this report have graded the overall significance of impacts on an incremental scale from “negligible” to “minor” to “moderate” to “major”, but qualification is also given to each of these categories in respect of whether the effects are “adverse” or “beneficial”. Where the nature of landscape or visual effects are deemed to be neither adverse nor beneficial, or show no substantial change in character from the baseline conditions, then these effects are classified as being “neutral”. The temporal nature or duration of landscape and visual effects are also assessed, and these are generally classified as being either “temporary” or “permanent”.
- 2.17 Assessments of the potential landscape and visual effects of the proposed development are predicted at various stages of the development, for example during the construction phase and then following completion of the development and during its subsequent operation with mitigation proposals in place.

Terminology

- 2.18 The following terminology is used in this assessment:
- *Landscape*: those physical components that together form the appearance of land, including its shapes, colours and textures. Landscape also reflects the way in which these various components combine to create distinctive landscape character particular to specific localities. The European Landscape Convention defines landscape as “an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors”.
 - *Landscape Character Area*: an area of unique landscape character specific to a locality. Typical landscape components defining character include landform, land cover, vegetation, settlement pattern, remoteness and degree of tranquillity.

- *Landscape Character Types*: are distinct types of landscape that are relatively homogenous in character. They may occur in different areas, but wherever a particular character type is found, it will share broadly similar attributes such as geology, topography, drainage pattern, vegetation type or land use.
- *Landscape Quality or Condition*: the physical state of the landscape, its state of repair or its intactness from a visual, functional and ecological perspective.
- *Landscape Value*: the relative importance or value of the landscape as expressed through national or local designation, or by consensus or public recognition. The value of a particular landscape may be defined through its unique character, scenic beauty, quality, rarity, tranquillity, cultural and historic associations or through biodiversity and conservation interest.
- *Landscape Receptor*: elements within the landscape (whether it be individual landscape features such as hedgerows or woodland, or areas of distinct landscape character) that have the potential to be affected by a proposed development.
- *Zone of visual influence*: an area within which a proposed development (or feature) may have an influence or effect on visual amenity.
- *Visual Envelope*: the extent of potential visibility to/from a specific area or feature.
- *Zone of Theoretical Visibility*: a map, usually computer generated, showing areas of land within which a development, or feature, is theoretically visible.
- *Visual Receptors*: individuals or groups of people such as residents, pedestrians and motorists who would experience an effect on views resulting from a proposed development.

3 The Development Proposals

(With reference to **Figure 10** in **Appendix A**)

- 3.1 The development proposal is for a 24 hectare extension to a consented solar farm development at Blythe House Farm, 1.4km to the south-west of the village of Upper Tean in Staffordshire. The extension development (described in this report as the 'Proposed Development') also proposes the relocation of the main substation from the northern boundary of the consented site to the southern edge of the proposed extension area, immediately adjacent to a 132KV overhead power line.
- 3.2 The Proposed Development site comprises two parcels of land: the north-eastern area comprising three agricultural fields to the north-east of the approved Blythe Solar Farm site; and the southern area, comprising three fields to the south and south-east of the consented development area. An additional two fields to the south-east will be utilised as a bird mitigation area. The overall development proposal is shown on the site layout plan on **Figure 10**.

- 3.3 The Proposed Development will be comprised of photo voltaic (PV) panels at a maximum height of 3.1m (above ground level), transformers and associated electrical infrastructure, storage containers, internal access roads, fencing and CCTV cameras. The substation / DNO compound will occupy an area of approximately 0.4 hectares and will be located on the southern edge of the extension site.
- 3.4 The electricity generated from the solar panels will be fed into the National Grid via an existing overhead line. This will require supporting electrical infrastructure contained within the compound, surrounded by 2m high metal palisade fencing. The substation compound will house the switch room, transformers, capacitor banks, relay rooms and storage area. The relocation of the compound adjacent to the overhead cables will provide a more efficient location close to the point of connection.
- 3.5 Fencing around the PV compartments will comprise 2m high deer fences with access gates. All transformer cabins and storage containers can be painted dark green.
- 3.6 Access to the site will be via tracks adjoining the Upper Newton Farm access road as shown on **Figure 10**. The northern part of the extension area will be accessed from the west, utilising the access already approved for the Blythe Solar Farm site, i.e to the north-west of the farm buildings at Upper Newton Farm and then along the northern site boundary. The southern parcel will be accessed by a separate track which will utilise an existing farm access track to the south of Lower Newton Farm.
- 3.7 Construction of the extension areas will be undertaken at the same time as the consented Blythe Solar Farm and is anticipated to take approximately 16 weeks. During this period a temporary construction compound will be established on the south-western edge of the Blythe Solar Farm site, adjacent to Lower Newton Farm, to be accessed from the existing road extending through the farmyard. Upon completion of the construction works, the temporary compound will be removed, and the area reinstated for agricultural use.
- 3.8 The whole development will be contained within existing field boundaries and only very limited sections of hedgerow and other boundary vegetation will be removed to provide access and to undertake the construction works.
- 3.9 Once the Proposed Development is completed and fenced, grassland below and around the solar arrays will be established and will be managed by sheep grazing. Linear hedgerows and plantations will be established to provide visual screening and landscape enhancement. In addition, fields will be set aside to the south-east of the extension site for ground nesting bird mitigation and to provide biodiversity enhancement.
- 3.10 The proposed life of the whole development (including the approved Blythe Solar Farm) will be 40 years, and after this time all of the solar infrastructure will be removed and the land reinstated to its current use.

4 Site Description and Landscape Context

- 4.1 The proposed extension site to Blythe Solar Farm is located within open countryside in Staffordshire, approximately 1.4km to the south-west of the large village of Upper Tean and south-west of the A50 dual carriageway (extending between Stoke-on Trent and Derby). The smaller villages of Cresswell and Draycott in the Moors lie approximately 1.8km and 1.5km to the north-west and north respectively, with the eastern edge of the Stoke-on-Trent conurbation (the suburb of Blythe Bridge) located c. 2.75km to the west/north-west. A site Location Plan is shown in **Figure 1** in **Appendix A**.
- 4.2 The Proposed Development site occupies agricultural land on a relatively gentle south-west facing slope within the wide shallow valley of the River Blithe, orientated on a north-west to south-east alignment. The extension site adjoins agricultural land to the north and north-west which acquired planning consent for a 27MW (42 hectare) solar farm (Blythe Solar Farm) in March 2023 (planning permission reference SMD/2022/0160) and also lies to the east of an existing 11.5MW (25 hectare) solar development at Lower Newton Farm. The approved Blythe Solar Farm development is awaiting construction.
- 4.3 The Derby to Stoke-on-Trent railway line runs along the valley bottom to the south-west of the Proposed Development areas. The narrow watercourse of the River Blithe flows south-west of, and parallel with, the rail line.
- 4.4 The proposed solar farm extension area is split into two distinct areas: the north-eastern area comprising three agricultural fields to the east of the consented solar farm and immediately south of the A50; and the southern area, comprising three fields to the south of the consented solar farm and c.80m to the north-east of the railway line. An additional two fields to the south-east are included within the site as a ground nesting bird mitigation area. For ease of reference, the three north-eastern extension fields are defined as Fields A, B and C, and the three southern extension fields as Fields D, E and F (see **Figures 8, 9 and 10** in **Appendix A**).
- 4.5 The land adjacent to the river and railway to the south-west of the site is relatively flat, with the low-lying land alongside the river occupying a narrow flood plain at a mean elevation of around 146.5mAOD. Extending north-east into the southern extension area (Fields D, E & F), the land rises gently to an elevation of approximately 156mAOD on the northern edge of this area, before rising more steeply through the consented solar farm area at an average gradient of between 1 in 15 and 1 in 20. The more elevated parts of the site within the north-eastern extension area (Fields A, B & C) vary in elevation between 172mAOD on the southern edge of this area to around 182mAOD along the northern boundary with the A50.
- 4.6 To the immediate north of the Proposed Development site (to the north of the A50), the land plateaus at a maximum elevation of 188m AOD, before falling away quite steeply into the valley of the River Tean, further to the north-east.
- 4.7 To the south and south-west of the river, the southern flank of the Blithe Valley rises through a relatively gentle gradient to a plateau at around 215-220m AOD, some 3km to the south-west.
- 4.8 A number of ditches and drainage channels drain the valley side within and adjacent to the extension site, with one main watercourse running north to south down the slope and to the west of Field F. This stream drains to the River Blithe via a culvert under the railway line to the south-west of Field F. The railway line sits on a low embankment about 1 – 1.5m above the adjacent flood plain.

4.9 There are five isolated ponds within or immediately adjacent to the proposed development site which are likely to be old marl pits. Small ponds and disused marl pits are a very characteristic feature within the local landscape. The five ponds are located as follows:

- i. Within the centre of Field C.
- ii. Immediately to the south of Field C.
- iii. Immediately to the south of Field A.
- iv. Immediately to the north of Field F (within an area to be managed as a wildlife mitigation area as part of the existing planning consent for the Blythe Solar Farm).
- v. On the western edge of Field E, although this pond was dry at the time of the site visit in June 2023 and is believed to be dry throughout most of the year.

There is also a small angling lake immediately north of the proposed 'bird mitigation area' on the eastern edge of the site, to the east of Field D.

4.10 The land use of the site and local area is predominantly permanent pasture (mainly grazed by cattle) with some fields within the surrounding area used for arable production and fodder crops. Much of the existing pastureland to the immediate north and west of the Proposed Development site forms part of the consented Blythe Solar Farm site.

4.11 At the time of the site surveys in June 2023, the extension area fields had recently been cut for hay or silage. A small flock of sheep were grazing within Field A at the northern end of the site.

4.12 The land to the immediate west and south of the Blythe Solar Farm site is developed with the existing 23 hectare solar farm adjacent to Lower Newton Farm. A solar development at Totmonslow Farm, to the north of the A50, received planning permission in August 2023. This permission is for a 19MW solar development extending over an area of 27 hectares. Also, as of September 2023, there is a planning application pending determination for a solar farm at Upper Leigh (Application Ref.: SMD/2023/0059), on 49.4 hectares of land to the south-east of the Blythe Solar Farm extension site.

4.13 Fields throughout the local area are of a variable size and shape, but tend to be smaller and more complex in configuration on the upper steeper slopes of the valley. Taller hedgerows and hedgerow trees are prevalent on the more elevated and steeper valley slopes, providing a relatively enclosed and more intimate character to this part of the local landscape. Larger fields, with fewer or discontinuous hedgerows, are more prevalent on the valley floor and lower valley slopes, affording a fairly open and exposed character to the landscape.

4.14 Extension Fields A, B, C and D are relatively small and enclosed by tall existing hedgerows. The western boundary of Field B has an open aspect to the adjacent access track to Blythe House Farm, and the boundary hedgerow between Fields B and C is discontinuous in places. Fields E and F are larger and more open in character, with an unenclosed aspect to the south, but with tall hedgerows to the east and west. Hedgerow enclosure along the railway to the south is intermittent.

4.15 Shrubby hedgerow species within the site mainly comprise hawthorn and blackthorn, with other species including hazel, elder, field maple, holly and dog rose. Hedgerow trees are frequent within the taller ('grown-out') hedgerows within the north-eastern part of the site (adjacent to Fields A, B and C), comprised mainly of mature ash, but with occasional sessile

oak, sycamore and field maple. Alder and willow are also common within the lower lying areas (adjacent to Fields D, E and F), and around ponds and on the stream side to the west of Field F.

- 4.16 Some evidence of Ash-dieback was noted on a number of ash trees during the site visit, but the disease did not appear to be widespread or well established within the site or surrounding landscape.
- 4.17 There are no extensive areas of woodland on the site or within the immediate surrounding landscape, although most of the ponds are enclosed by scrub and mature trees, providing wooded punctuation across the site. The embankments and cuttings along the A50 to the north are predominantly planted with trees and shrubs, providing significant visual enclosure along most of the north-eastern boundary of the site and generally precluding views into the site from the north.
- 4.18 In the wider landscape, there is a greater prevalence of woodland on the upper valley slopes and plateau some 2 -3km to the south-west of the site which forms a wooded skyline in south-westerly views from within the site. Extended views out from the site into the wider landscape setting are principally across the river valley and towards rising ground to the south and south-west.
- 4.19 In respect of character, the site is rural and relatively remote in nature, being somewhat isolated from the villages and larger settlements to the north of the A50 dual carriageway. However, the remoteness and potential tranquillity of the site is significantly eroded by the A50, which is audible over a very wide area.
- 4.20 Other elements within the surrounding landscape which detract from the rural character of the site are: - the Stoke to Derby railway line (visible to the south-west); the presence of the existing solar farm at Lower Newton Farm to the west; and a high voltage power line (on pylons) running on a south-east to north-west alignment, parallel to the railway to the south-west of the site. The existing Lower Newton solar farm is very conspicuous in some views from a large tract of land to the south and west. In addition, the consented developments at Blythe Solar Farm and Totmonslow Farm (to the north) are likely to further erode the inherent rural and agricultural character of the local landscape when these developments are built out.
- 4.21 Although there are no settlements within 1.4km of the extension site, there are a number of farmsteads and isolated dwellings throughout the local area. Local farmsteads and dwellings immediately adjacent to, or within 1km of the site include:
- Blythe House Farm (dwelling), c.75m to the north-east of Field D.
 - Highfields Farm, north of the A50, 260m north-west of the north-eastern part of the site.
 - Benthouse Farm, north of the A50, 750m north/north-east of the north-eastern part of the site.
 - A residential dwelling adjacent to a plant nursery (west of Benthouse Farm), 730m north/north-east of the north-eastern part of the site.
 - Tean Leys Farm, north of the A50, 770m east/north-east of the north-eastern part of the site.
 - Lower Tean Leys Farm, 510m east/south-east of the north-eastern part of the site.
 - Dairy House Farm, 850m south/south-east of the southern part of the site (1.3km from the north-eastern part of the site).

- Paynsley Hall Farm, 700-800m to the south-west of the site (beyond the railway line), believed to contain one residential dwelling.
- Paynsley Hall Farm, 600m to the west/south-west of the southern part of the site (beyond the railway line).
- A single cottage known as ‘Newton Crossing Cottage’ (aka ‘Aldbrough House’), adjacent to the railway line, 900m north-west of the southern part of the site.
- Upper and Lower Newton Farms (containing 3 residential properties), adjacent to the proposed construction access road, c.1km north-west of the southern part of the site.

Of the above properties, only Blythe House Farm, Dairy House Farm and Paynsley Hall Farm have some limited degree of intervisibility with the Proposed Development site, however there are other residential dwellings within the wider landscape, particularly to the south and south-west, which might have some intervisibility with the site. The potential views of the site from these properties are highlighted in Section 8 of this report.

- 4.22 The local area is well served by public rights of way (see **Figure 3** in **Appendix A**), including three public footpaths which run through the Proposed Development site or are located immediately adjacent to the site boundaries. These rights of way are namely:
- ‘Checkley 5’ which runs south to north, along the eastern boundary of Field E over a distance of 300m, and between Fields A and B over a distance of 200m.
 - ‘Checkley 7’ which extends over a distance of 480m along the northern boundary of Field E and north of Field F on an east-west alignment.
 - ‘Checkley 15’ which runs south-west to north-east, through the proposed ‘bird mitigation area’ and east of Field D for a distance of 260m.
- 4.23 There is also an extensive network of public rights of way within the wider landscape to the south and south-west of the site, with a number of these footpaths having visual connectivity with the site.
- 4.24 The overall experiential character of the site and surrounding area is that of a fairly remote pastoral landscape with long range views over a rural river valley, but with urbanising influences such as the busy A50 dual carriageway, the Stoke to Derby railway line, overhead electricity transmission lines and the existing solar farm at Lower Newton. However, the inherent character of the local area is likely to change to some extent when the consented Blythe Solar Farm development is implemented. The LVIA for the consented Blythe Solar Farm predicts that the overall landscape character effect of the development within the local area is likely to be moderately adverse in the short to medium-term, but with some beneficial effects in the longer term once the site planting has established. In addition, the recently consented solar development at Totmonslow Farm is likely to further influence the changing landscape character of the local area.

5 Published Landscape Character Assessments

National Character Area Assessment

- 5.1 The Proposed Development site lies on the north-western edge of the ‘Needwood and South Derbyshire Claylands’ National Character Area (NCA) - Profile Area 68, as described within ‘The

Character of England: Landscape, Wildlife and Natural Features' formerly published by the Countryside Agency (now incorporated into Natural England's 'National Character Areas' publication). The Character Area extends from the southern edge of the Peak District in the north to the valley of the River Trent in the south-west, encompassing an area of rolling plateau, divided by a series of wide river valleys.

5.2 Some of the key characteristics of the 'Needwood and South Derbyshire Claylands' NCA are described as follows:

- *The area, which is dissected by the river systems of the Trent, the Blithe and the Dove, forms a rolling glacial till plateau that slopes south- eastwards from the southern edge of the Peak District to the valley of the River Trent.*
- *The south is dominated by heavy, seasonally waterlogged soils derived from glacial till. In the north, red and pink soils underlain by Mercia Mudstones and Sherwood Sandstone are more amenable to cultivation.*
- *A predominantly pastoral landscape of rolling countryside that is still largely rural and relatively tranquil, featuring distinctive field boundary patterns and characteristic hedgerows with hedgerow trees. Grassland for livestock is the dominant land use although dairy and cereal farming are also important. The majority of the farms are small- to medium-sized dairying and livestock holdings.*
- *An overall wooded character derived from scattered ancient and semi- natural woods, parkland and boundary trees.*
- *Predominantly hedgerow bounded, the field pattern varies from small- to medium-sized fields to the north of the Dove to mostly large-scale and rectilinear on the broad river flood plains.*
- *A wide range of habitats associated predominantly with pasture, varying from damp lowland grassland and marshland to drier neutral grassland. There are good surviving examples of water meadows featured along the three main river valleys.*
- *A dispersed historical settlement pattern, particularly in the higher pastoral farmlands that fringe the Peak District to the north, with the older villages generally sited along the valleys or valley sides, and more recent crossroad settlements on the higher ground. Buildings are usually of red brick and clay tile roofs, and local sandstone.*
- *Running west to east, the A50, A51 and A52 form the main transport corridors through the area. They provide the main link to the settlements of Ashbourne and Uttoxeter.*
- *A good network of rights of way and other trails and paths, along with ease of access from the surrounding conurbations of Stoke-on-Trent, Derby, and Burton-upon-Trent, means that the area is important for recreation.*

Local Character Area Assessment

5.3 A local landscape character assessment is provided in the 'Landscape and Settlement Character Assessment of Staffordshire Moorlands' (2008). This Assessment was undertaken by Wardell Armstrong LLP on behalf of Staffordshire Moorlands District Council to inform the Council's Core Strategy. The overall aim of the Character Assessment document was to

provide a robust framework to guide the future development and management of the landscape of the Staffordshire Moorlands, ensuring that the distinctive character of the landscape is retained, and change is managed positively. The key objectives of the assessment are to:

- *Provide an up to date and integrated description of the Staffordshire Moorlands landscape, identifying key characteristics;*
- *Identify key planning and land management issues;*
- *Identify the key capabilities and sensitivities of the landscape to development and change;*
- *Propose landscape planning guidelines;*
- *Suggest land management guidelines;*

5.4 The 'Landscape and Settlement Character Assessment of Staffordshire Moorlands' divides the district in to ten distinctive Character Types which identify the key characteristics and issues within a range of landscape types across the district.

5.5 The Proposed Development site is located within the 'Settled Plateau Farmland Slopes' Character Type (**Figure 4 in Appendix A**). The key characteristics of this area are:

- *Gentle undulating landform with flat open valleys.*
- *Small scale ancient hedgerow field pattern.*
- *Low lying wet fields with ponds and well vegetated streams.*
- *Views limited by hedgerow pattern and dense tree cover.*
- *Predominantly low intensity pastoral farming.*
- *Urban fringe farming with horsey-culture.*
- *Incongruous A50 dual carriageway corridor and mainline railway*

5.6 The Landscape Assessment also identifies planning and land management issues, with recommendations for planning and management guidelines for the Landscape Character Type as highlighted below:

Key Planning and Management Issues:

- *Impact of conurbation; urban fringe farming and increase in horsey-culture.*
- *Replacement of hedgerows by fencing.*
- *Busy roads and mainline railway.*
- *Loss of some semi-natural vegetation (ancient woodland, hedgerows and semi-natural grasslands).*

Landscape Planning Guidelines:

- *Planting along streams is an important feature of this landscape character type.*
- *Reinforcement of streamside planting with native wetland tree and shrub species is to be encouraged.*
- *Reinforcing the existing vegetational structure of the area away from the urban fringe should consist of small-scale planting of small field size, field corners and hedgerow trees.*
- *The character of floodplains should remain more open.*
- *New native woodland planting should where possible be used to improve the distribution of and links to existing ancient woodlands, counteracting isolation of these woodlands.*
- *The loss of semi-natural vegetation should be checked and remaining habitats should be protected, managed and where possible extended to create sustainable communities.*

Land Management Guidelines:

The condition of the semi-natural vegetation characteristic of this Landscape Type is generally deteriorating. These habitats require protection, management and to be re-established. The main issues are as follows:

- *Hedgerows:*
It is highly important that ancient and diverse hedgerows, particularly the hedgerow trees along them, are maintained and managed. Where hedgerows are planted or restored it is important that they should be species rich reflecting local indigenous hedge mixes and that the plants where possible should be grown locally.
- *Canals, lakes and ponds:*
The maintenance and enhancement of water bodies and catchments is highly important as is increasing the number of water bodies.
- *Rivers and Streams:*
It is highly important that the quality of all natural existing channel features is maintained and that the quality and quantity of water is improved.
- *Wet Woodlands:*
It is highly important that further losses of wet woodlands are prevented and that existing woods are maintained, enhanced and restored. Efforts should be made to increase the number of wet woodlands in the area particularly within the flatter valley bottoms.
- *Lowland Wet Grassland:*
Existing lowland wet grassland should be maintained and enhanced. Degraded areas should be restored and opportunities taken to create new areas.

- *Unimproved and Neutral Grassland:*
Existing unimproved and neutral grasslands that are in poor condition should be restored. These habitats should be maintained and safeguarded, and habitat creation should be used to link adjacent sites through the creation of new sites or re-creation of former areas.

6 Landscape, Heritage and Nature Conservation Designations

(with reference to **Figure 2** in **Appendix A**)

Landscape Designations:

- 6.1 The Proposed Development site is not located within any national or local landscape designation. The nearest nationally designated area is the Peak District National Park, which is located approximately 14km to the north-east.
- 6.2 The designated Green Belt enveloping Stoke-on-Trent is located approximately 1.5km north-west of the Proposed Development site. The Proposed Development will therefore not be located within the Green Belt and will not impact on the Green Belt designation.

Heritage Designations

- 6.3 The submitted Historic Environment Desk Based Assessment indicates that there are no Schedule Monuments within or immediately adjacent to the Proposed Development site.
- 6.4 The nearest Scheduled Monument is the earthworks remains of a Medieval moated settlement at Paynsley Hall Farm, located approximately 460m to the west of the Proposed Development site. There is some very limited intervisibility between this Scheduled Monument and the development site and it is predicted that the proposed development will have very limited visual impact upon this heritage asset. As stated in the accompanying Historic Environment Desk-Based Assessment (HEDBA), *“the asset and its curtilage share very limited intervisibility with the site and share no known historic connection, therefore, whilst the construction of the solar farm may represent a minor change in the setting of the asset, it will not result in any impacts to its significance.”*
- 6.5 There is also a smaller Scheduled Monument at Blithewood, another medieval moated site, approximately 940m to the south-west of the Proposed Development site at its nearest point. The monument survives in good condition, with its earthworks being particularly evident, but it is relatively well enclosed by hedgerows and scrub vegetation. Although there is some limited intervisibility with the approved Blythe Solar Farm site, the proposed extension site appears to be fairly well screened by intervening vegetation. Consequently, the potential impact of the Proposed Development upon the setting of this Scheduled Monument is likely to be insignificant.
- 6.6 There is only a limited number of Listed Buildings within the immediate locality of the site, the nearest being ‘Blythe House’ (at Blythe House Farm), approximately 75m north-east of Field D. This Grade II Listed 18th century farmhouse is mostly enclosed by trees and other buildings on all but its south-easterly aspect, which faces away from the Proposed

development area. However, there are some limited views into Field D from first and second floor windows on the western side of the house (See **Photo Viewpoint 9** in **Appendix B**).

- 6.7 There is also a Grade II Listed farmhouse at Paynsley Hall Farm (500m west/south-west of the site), but this is believed to be derelict and is partially enclosed by scrub vegetation and adjacent farm buildings. Views to the north are also affected by the existing solar farm at Lower Newton Farm, and there is only very limited intervisibility with the Proposed Development site. It is predicted that the extension development will not result in any impacts that would affect the significance of this listed building.
- 6.8 All other listed buildings and structures within the study area are over 1.5km from the site and it is unlikely that the Proposed Development will cause any adverse impact upon the settings of these more distant heritage assets.

Nature Conservation Designations

- 6.9 There are no international or national designated sites of nature conservation interest within 2km of the Proposed Development site.
- 6.10 There is a non-statutory nature conservation site comprising ‘floodplain grazing marsh’ approximately 100m to the south of the southern extension area (immediately south of the railway).
- 6.11 There is a very limited number of Ancient Woodland sites within the local area, but none are within 1.2km of the Proposed Development site.

7 Relevant Planning Policy and Other Planning Issues

- 7.1 Local planning policy relevant to landscape issues, the countryside, and renewable energy can be found in the ‘Staffordshire Moorlands Local Plan (2014 -2033), adopted in September 2020.
- 7.2 **Policy SS10: Other Rural Areas Strategy** - relates to development in the countryside and states that:

“The other rural areas comprise the countryside and the green belt outside of the development boundaries of the towns and larger villages and the open countryside surrounding the smaller villages.

These areas will provide only for development which has an essential need to be located in the countryside, supports the rural diversification and sustainability of the rural areas, promotes sustainable tourism or enhances the countryside. The Council and its partners will achieve this through the following actions:

Enhance and conserve the quality of the countryside by:

- *Giving priority to the need to protect the quality and character of the area and requiring all development proposals to respect and respond sensitively to the distinctive qualities of the surrounding landscape;*
- *Limiting uses which generate a substantial number of regular trips in areas that are not well served by public transport;*
- *Ensuring renewable energy schemes are of an appropriate scale, type and location;*
- *Encouraging measures which protect and enhance the biodiversity, geological resources and heritage of the District.”*

7.3 Policy in respect of renewable energy is provided in **Policy SD2: Renewable / Low-Carbon Energy** – which states that:

“The Council will strive to meet part of the District’s future energy demand through renewable or low-carbon energy sources..... the Council will support small and large-scale standalone renewable or low-carbon energy schemes, subject to the following considerations:

- *the degree to which the scale and nature of a proposal impacts on the landscape, particularly having regard to relevant Landscape Character evidence and impact on the Peak District National Park (taking into account both individual and cumulative effects of similar proposals);*
- *the degree to which the developer has demonstrated any environmental / economic / social benefits of a scheme, as well as how any environmental / economic / social impacts have been minimised (e.g. visual, noise, smell);*
- *the impact on the amenity of residents and other interests of acknowledged importance, including the historic environment.”*

7.4 Other landscape specific planning policies within the current Local Plan include:

Policy DC3: Landscape and Settlement Setting –

“The Council will protect and, where possible, enhance local landscape and the setting of settlements in the Staffordshire Moorlands by:

1. *Resisting development which would lead to prominent intrusion into the countryside or have a significant impact upon the character or the setting of a settlement or important views into and out of the settlement as identified in the Landscape and Settlement Character evidence;*
2. *Supporting development which respects and enhances local landscape character and which reinforces and enhances the setting of the settlement as identified in the Landscape and Settlement Character evidence;*
3. *Supporting developments which conserve and enhance the biodiversity qualities of any natural or man-made features within the landscape such as trees, woodland, hedgerows, walls, watercourses or ponds:*

4. *Supporting opportunities to positively manage the landscape and use sustainable building techniques and materials which are sympathetic to the landscape.*
5. *Ensuring that development does not adversely affect the wider setting of the Peak District National Park.”*

Policy NE2: Trees, Woodlands and Hedgerows –

“The Council will protect existing trees, woodlands and hedgerows, in particular, ancient woodland, veteran trees and ancient or species-rich hedgerows from loss or deterioration. This will be achieved by:

- *Requiring that existing woodlands, healthy trees and hedgerows are retained and integrated within a proposed development unless the need for, and benefits of, the development clearly outweigh their loss;*
- *Requiring new developments to provide tree cover that secures a good level of sustainability through tree retention, planting and soft landscaping, including where possible the on-site replacement of any trees that are removed with sufficient tree planting to replace or increase the canopy cover on-site as appropriate. Landscaping schemes will also be required to mitigate against negative landscape impact and complement the design of new development and make provision for future maintenance. Where it is not possible to secure this new or replacement tree planting within the site, the Council will work with applicants to ascertain if a suitable site(s) can be found off-site for replacement planting in the locality;*
- *Resisting development that would directly or indirectly damage existing ancient woodland, veteran trees and ancient or species-rich hedgerows.*

The Council will refer to its adopted Tree Strategy in the consideration of proposals; and will in general seek to retain as many trees and as much hedgerow on site as possible.”

8 Site Visibility and Visual Sensitivity

(with reference to **Figures 5, 6, 7, 8 & 9** in **Appendix A** and **Photo-Sheets 1-14** in **Appendix B**)

- 8.1 An initial computer-generated Zone of Theoretical Visibility (ZTV) analysis has been undertaken to assess the potential extent of visibility within the surrounding landscape of the consented Blythe Solar Farm, combined with the existing development at Lower Newton Farm. A graphic representation of the theoretical zones of visibility for both of these sites is given in **Figures 5** in **Appendix A**. This represents the baseline situation against which any additional increase in the zone of visibility resulting from the proposed development can be measured.
- 8.2 The zone of visibility shown on **Figure 5** generally accords with the previous visual impact assessments undertaken for both the Lower Newton Solar Farm and the consented Blythe Solar Farm and demonstrates that both developments have a fairly extensive zone of visual

influence extending in excess of 2km, mainly to the south and south-west and west of the sites. Views of the sites from the north are mainly curtailed by landform and the relatively dense linear plantations along the A50.

- 8.3 A second ZTV analysis was then undertaken to assess the combined zone of visibility of all three sites, comprising the existing Lower Newton Solar Farm Development, the consented Blythe Solar Farm and the Proposed Development. This combined zone of theoretical visibility is shown on **Figure 6**.
- 8.4 The ZTV illustrated on **Figure 6** was then overlaid onto the ZTV illustrated on **Figure 5** to show the additional potential zone of visibility resulting from the proposed extension development. This additional zone of visibility for the Proposed Development is shown as the pink shaded area on **Figure 7**.
- 8.5 **Figure 7** illustrates that the additional zone of visibility of the Proposed Development (over and above that of the Lower Newton Solar Farm and the consented site) is very limited and mainly extends to the east and the south-east of the combined sites.
- 8.6 The methodology for undertaking the ZTV assessment is given in **Appendix C**.
- 8.7 To verify the results of the ZTV analysis, a visual survey and assessment of the Proposed Development site and the surrounding landscape was carried out in the field on the 8th June 2023. The visit was undertaken in bright sunny conditions with good visibility over a distance of several kilometres. At the time of the survey, deciduous trees, hedgerows and woodland were in full leaf, providing optimum visual screening.
- 8.8 It was evident that the intervisibility between the proposed site and the surrounding landscape is mainly influenced by the orientation of the site on a shallow south-west facing slope and the variable screening effects of existing hedgerows, hedgerow trees and occasional woodland plantations within the local landscape.
- 8.9 The field survey confirmed that the Proposed Development site, in association with the consented Blythe Solar Farm, has an extensive zone of visibility covering an arc of land within the valley floodplain and on rising ground extending for a distance of 2 – 2.5km to the south and south-west, and to some extent to the west. Within this zone of visual influence, the combined site area of the Blythe Solar Farm and the Proposed Development site is visible to a number of isolated dwellings and farmsteads, and to a network of public rights of way. It was also evident that land which will contain the recently consented solar development at Totmonslow Farm (to the north-west of the Blythe House Farm site) is partially visible in long distance views from the south-western flank of the Blithe Valley, although this site is mostly screened by vegetation along the A50.
- 8.10 Views of the combined Blythe Solar Farm and Lower Newton sites from the north are mostly restricted by the plantations along the A50 and the network of tall hedgerows across the northern plateau. Also, views from the east and west are relatively oblique and screened by tall hedgerows on the site boundaries and beyond.

- 8.11 The Proposed Development site, when viewed in isolation, has a similar zone of visual influence to the combined sites, mainly to the south and south-west, but there is also the potential for the Proposed Development to be visible from an additional small area of land, and receptors, to the east, south-east and south.
- 8.12 Within the Proposed Development site, the larger southern fields on the lower valley slope are relatively open and visually exposed, affording views over a wide area, whereas the smaller fields on the higher ground in the north-eastern part of the site, are more enclosed by tall hedgerows and hedgerow trees providing a greater degree of visual screening, particularly in the longer distance views from the south and south-west.
- 8.13 Most of the public rights of way within the Proposed Development site, and those immediately adjacent to the site boundaries, are likely to be visually affected by the Proposed Development. Open views into Fields A and B in the north-eastern site area can be gained from footpath 'Checkley 5' (see **Photo Viewpoints 1, 2 & 3 in Appendix B**). To the south of Fields A & B, there are also some elevated southerly/south-westerly views across Fields D, E and F (see **Photo Viewpoint 4**), but it is likely that views of Fields E and F will be obscured by the construction of the consented Blythe Solar Farm and the planting of a hedgerow to the immediate west of the footpath. Footpath 'Checkley 5' also runs along the eastern edge of Field E and provides open and immediate views of the Proposed Development area within this field, including the proposed relocated substation area in the south-western corner of the field (see **Photo Viewpoint 7**).
- 8.14 Open views into Fields E and F can also be gained from footpath 'Checkley 7' which runs along the northern boundary of the southern extension area (see **Photo Viewpoints 5 & 6**). 'Checkley 7' also affords some limited views into Field D at a gateway on the northern field boundary, but most of Field D is visually enclosed by dense hedgerows.
- 8.15 Footpath 'Checkley 15' passes to the south-east of the Proposed Development areas but crosses the fields to the south-east which is within the area which has been identified for bird mitigation. The majority of the proposed extension areas are screened from footpath 'Checkley 15' by dense hedgerows, although some limited views of Field D are available immediately to the south-east (see **Photo Viewpoint 10**). There are also some limited middle-distance views of the wider site area from the footpath as it runs south, to the south of the railway line and the river.
- 8.16 There are only limited views of the Proposed Development site from nearby residential properties. Views from 'Blythe House' to the east are restricted due to surrounding vegetation, with the main aspect of this dwelling being away from the site to the east. However, there are some partial and filtered views of Field D (to the south-west) from some first and second floor windows at 'Blythe House' (see **Photo Viewpoint 9**).
- 8.17 Two of the dwellings at Upper and Lower Newton Farm (namely 'Newton House' and 'Lower Newton Farmhouse' are located close to the proposed construction access road to the west, but it is unlikely that the extension areas will be visible to these properties. Notwithstanding this, parts of the consented Blythe Solar Farm will be visible to both of these dwellings.

- 8.18 There are no views of the Proposed Development site from the A50 to the north, nor from any locations to the north of the A50.
- 8.19 From the railway line to the south-west, Fields E (incorporating the proposed substation site) and Field F are visible, although views will be transitory from trains passing at speed. Typical views from passing trains will be similar to the view illustrated in **Photo Viewpoint 8**, located adjacent to the railway boundary fence to the south of Field E.
- 8.20 To the south of the River Blithe, there are some relatively open, middle-distance views of the southern part of the Proposed Development site in Fields D, E and F, from a number of public footpaths on the rising ground to the south and south-west. Typical views are illustrated in **Photo Viewpoints 12 & 13**. There is also the potential for some limited long-distance views of the southern part of the site from public rights of way on the elevated valley slopes and plateau some 2 – 2.5km to the south and south-west.
- 8.21 Dwellings or Farmsteads within the wider landscape to the south, south-west and west which are likely to have some middle to long distance views of the extension site include:
- ‘New House Farm’ – 1.3km to the south-west (see **Photo Viewpoint 12**).
 - ‘Wood Farm’ – 2km to the south/south-west (see **Photo Viewpoint 14**).
 - ‘Dairy House Farm’ – 900m to the south.
 - ‘Paynsley Hall Farm’ – 700m to the west (see **Photo Viewpoint 11**).

Potential views of the Proposed Development site from the farmhouse at ‘New House Farm’ are from first floor windows only. The farmhouse at ‘Paynsley Hall Farm’ is mostly enclosed by trees, and hence is unlikely to have any views of the site. Views from ‘Dairy House Farm’ are very restricted due to intervening vegetation, although Field C is partially visible within the north-eastern part of the site. Likewise views of the extension areas from the dwelling at ‘Wood farm’ are limited due to distance and intervening vegetation.

- 8.22 There may also be the potential for some limited distant views of the extension site to be obtained from other isolated dwellings on the higher ground 2 – 3km to the south, at locations in and around Middleton Green and Morrilow Heath.
- 8.23 To help define the existing visual baseline and to assess the potential visual effects of the development, it is accepted practice to select a number of representative photo viewpoints within the visual envelope of the proposed development. The selected viewpoints are not intended to cover every possible view of the site, but they are a representation of a range of receptor types (e.g. residents, recreational walkers and road users) from various directions and distances from the site. The locations of these viewpoints are shown on **Figures 8 & 9**, with the photographs taken at each of the accessible viewpoints illustrated on **Photo Sheets 1 – 14 in Appendix B**.
- 8.24 A description of the photographic viewpoints and the potential views of the Proposed Development site, along with the sensitivities of the receptors, are given in Table 1 below. In terms of visual sensitivity, views from dwellings, public rights of way and other public access areas are generally judged to have a high sensitivity, whereas transient views from roads and railways, or views from places of work, are deemed to be less sensitive. The criteria for

sensitivity of visual receptors are given in the visual assessment methodology outlined in **Appendix D**.

Table 1: Representative Views towards the Site (see **Figures 8 & 9** and **Photo Sheets 1 - 14**)

Viewpoint Location	Main Visual Receptors	Distance from the proposed development area	Receptor Sensitivity	Description of Baseline View
<u>Photo Viewpoint 1:</u> A south-westerly view across Field A within the north-eastern part of the site from public footpath 'Checkley 5'. This section of footpath is located on a track accessing Blythe House Farm. (Photograph taken 8th June 2023)	Footpath users (recreational walkers) and residents / visitors accessing Blythe House Farm.	Immediately north-east of Field A.	High: The users of public footpaths are judged to have a high visual sensitivity to their surroundings. The footpath / track is also used by residents accessing Blythe House Farm.	The view is across a relatively small pastoral field, mostly enclosed by tall hedgerows (with gaps in places). More extensive views can also be gained across the Blithe Valley to the south-west. The open view into the site is available over an approximate 50m length of the footpath between the bridge over the A50, up until a section of the footpath that is enclosed by a dense hedgerow further to the south.
<u>Photo Viewpoint 2:</u> A south-easterly view across Field B within the north-eastern part of the site from public footpath 'Checkley 5'. This section of footpath is located on a track accessing Blythe House Farm. (Photograph taken 8th June 2023)	Footpath users (recreational walkers) and residents / visitors accessing Blythe House Farm.	Immediately north-west of Field B.	High: The users of public footpaths are judged to have a high visual sensitivity to their surroundings. The footpath / track is also used by residents accessing Blythe House Farm.	An open view across a small to medium sized pastoral field. There is no hedgerow enclosure along the track and public footpath running adjacent to the western field boundary. Views into Field B are available from a 200m length of the public footpath. Partial views are also available into Field C further to the east, although longer distance views into the wider landscape are mostly enclosed by tall hedgerows and hedgerow trees.
<u>Photo Viewpoint 3:</u> A north/north-easterly view into Fields A & B from public footpath 'Checkley 5' and the access track from Blythe House Farm. (Photograph taken 8th June 2023)	Footpath users (recreational walkers) and residents / visitors accessing Blythe House Farm.	Immediately south of Fields A & B.	High: The users of public footpaths are judged to have a high visual sensitivity to their surroundings. The footpath / track is also used by residents accessing Blythe House Farm.	This viewpoint provides relatively open views into Fields A & B from the immediate south of these two fields. Views into the wider landscape are screened by hedgerows and plantations along the A50 to the north.

Viewpoint Location	Main Visual Receptors	Distance from the proposed development area	Receptor Sensitivity	Description of Baseline View
<u>Photo Viewpoint 4:</u> A south-westerly view across the consented Blythe Solar Farm site and across the wider Blithe Valley to the south-west from public footpath 'Checkley 5' and the access track from Blythe House Farm. (Photograph taken 8th June 2023)	Footpath users (recreational walkers) and residents / visitors accessing Blythe House Farm.	Immediately north-east of the consented development site and 260-300m north-east of proposed development Fields D, E & F.	High: The users of public footpaths are judged to have a high visual sensitivity to their surroundings. The footpath / track is also used by motor vehicles accessing Blythe House Farm.	This viewpoint provides an extensive view across the wider Blithe Valley which mainly comprises pastoral agricultural land, subdivided by a network of hedgerows. However, it is likely that the consented Blythe Solar Farm will dominate near views when it is built and will reduce views across the wider landscape. Proposed development Fields D, E & F are visible in the middle distance, but views of Fields D & F will be obscured by the approved Blythe Solar Farm when it is built.
<u>Photo Viewpoint 5:</u> A south-westerly view from the intersection of public footpaths 'Checkley 5' and 'Checkley 7' on the north-eastern edge of Field E. (Photograph taken 8th June 2023)	Footpath users (recreational walkers)	Immediately north-east of Field E.	High: The users of public footpaths are judged to have a high visual sensitivity to their surroundings.	This viewpoint provides an open view across pastureland looking south-west with the proposed development site located immediately to the south. The railway line is visible at the southern end of the field in the middle distance, with a patchwork of pastoral fields on the south-western flank of the valley beyond.
<u>Photo Viewpoint 6:</u> A south-westerly view from public footpath 'Checkley 7' to the north of Field F. (Photograph taken 8th June 2023)	Footpath users (recreational walkers)	c.75m north / north-west of Field F.	High: The users of public footpaths are judged to have a high visual sensitivity to their surroundings.	This location affords open views across pastoral farmland with Field F being visible to the near distance. The land immediately south of the footpath will form part of the 'Wildlife Mitigation Area' within the approved Blythe Solar Farm Development and will remain as an open field with some proposed hedgerow and woodland scrub planting immediately north of Field F. The longer distance views across the valley are likely to be screened by the proposed planting in the medium to long term.

Viewpoint Location	Main Visual Receptors	Distance from the proposed development area	Receptor Sensitivity	Description of Baseline View
<u>Photo Viewpoint 7:</u> This is a view from public footpath 'Checkley 5' on the south-eastern edge of Field E, looking north / north-west. (Photograph taken 8th June 2023)	Footpath users (recreational walkers)	Immediately south-east of proposed extension Field E.	High: The users of public footpaths are judged to have a high visual sensitivity to their surroundings.	The view is across an open field which is mostly enclosed by tall hedgerows. Parts of the consented Blythe Solar Farm site can be seen on rising ground to the north and north-west. The Proposed Development site is immediately visible to the north-west. The proposed site for the relocated substation is also visible.
<u>Photo Viewpoint 8:</u> This is a view from the field boundary adjacent to the railway line to the south of Field E, looking north-east. This view is generally representative of views from the railway. (Photograph taken 8th June 2023)	Rail passengers on the adjacent railway line.	c.80m south of proposed extension Field E.	Low – Moderate: Rail passengers are judged to have a low to moderate visual sensitivity to their surroundings as views are transient.	Views to the north from the rail line are relatively open and look across pastoral fields on a moderately rising landform. However, there are some sections of the rail line to the immediate east and west where open views are precluded by tall hedgerows and scrub on the railway embankment. Further to the west there are some relatively open views of the Lower Newton Solar Farm from the railway. Large parts of the Proposed Development site will be visible from the railway, predominantly Field E (including the proposed substation site) and Field F.
<u>Photo Viewpoint 9:</u> This is a view from extension Field D, looking east towards Blythe House Farm. It was not possible to take photographs from the farmhouse towards the site, so this photograph illustrates the intervisibility between Field D and the farmhouse. (Photograph taken 8th June 2023)	Residents at Blythe House Farm.	The farmhouse is c.75m north-east of the proposed development area.	High: Residents are judged to have a high visual sensitivity to their surroundings.	The view back from the site towards the farmhouse illustrates that Field D is relatively well enclosed by tall hedgerows and hedgerow trees. The farmstead is also well enclosed by trees to the west. Views into the Proposed Development site are restricted to the northern part of Field D and appear to be from a limited number of windows on the first and second floor of the dwelling. However, there may be some slightly more open views of Field D when the intervening vegetation is without leaves in winter and early spring.

Viewpoint Location	Main Visual Receptors	Distance from the proposed development area	Receptor Sensitivity	Description of Baseline View
<u>Photo Viewpoint 10:</u> A northerly view from public footpath 'Checkley 15' to the south-east of Field D. (Photograph taken 8th June 2023)	Footpath users (recreational walkers)	c.30m south-east of Field D.	High: The users of public footpaths are judged to have a high visual sensitivity to their surroundings.	The view is across the field earmarked as an area for ground nesting bird mitigation. The field is reasonably well enclosed by tall hedgerows, but partial views into extension Field D can be gained where there are some gaps in the hedgerow to the west.
<u>Photo Viewpoint 11:</u> A view looking east from public footpath 'Draycott in the Moors 15' just to the north of Paynsley Hall Farm. (Photograph taken 8th June 2023)	Footpath users (recreational walkers).	c.700m west of the proposed extension site.	High: The users of public footpaths are judged to have a high visual sensitivity to their surroundings.	This view is across pastureland to the south of the River Blithe looking towards the north side of the valley. The existing Lower Newton Solar Farm is conspicuous in views to the north-east. The western and eastern sections of the consented Blythe Solar Farm site are partially visible to the north and east of the existing solar farm. There are some very limited views of the Proposed Development site (Field F) over a distance of some 800m.
<u>Photo Viewpoint 12:</u> A view looking north-east from public footpath 'Checkley 8', just to the south of New House Farm. (Photograph taken 8th June 2023)	Footpath users (recreational walkers). Residents at New House Farm.	c.1.2km south-west of the extension site.	High: for footpath users, but potentially only Moderate sensitivity for residents at New House Farm due to the property having a more limited view.	This long-distance view extends across the Blithe Valley, with the existing solar farm at Lower Newton appearing quite prominent. Large parts of the consented Blythe Solar Farm site area are also visible, as well as parts of Fields D, E and F within the proposed site (and the proposed substation area). In addition, fields that will contain the recently consented solar farm at Totmanslow Farm are partially visible from this viewpoint, along with the potential site of a proposed solar farm site at Upper Leigh, further to the east. This viewpoint is partly representative of views from New House Farm, although the farmhouse is mostly enclosed by vegetation and views from the dwelling are mainly limited to first floor windows.

Viewpoint Location	Main Visual Receptors	Distance from the proposed development area	Receptor Sensitivity	Description of Baseline View
<u>Photo Viewpoint 13:</u> A north / north-easterly view from public footpath 'Checkley 63' within remote farmland to the south of the River Blithe and south-west of the proposed extension site. (Photograph taken 8th June 2023)	Footpath users (recreational walkers).	c.530m south-west of proposed extension Field E and the proposed substation area.	High: The users of public footpaths are judged to have a high visual sensitivity to their surroundings.	This view is across flatter pastureland within the widening river valley looking towards the rising landform on the north side of the valley. The central part of the consented Blythe Solar Farm site, along with Fields E & F within the extension area (and the proposed substation area) are visible in the middle distance. To the north, there are also partial views of the existing solar farm at Lower Newton and the north-western part of the approved Blythe Solar Farm site. Land to the east of Blythe House Farm is also partially visible within the vicinity of the proposed, but unconsented, solar development at Upper Leigh (planning application ref.: SMD/2023/0059).
<u>Photo Viewpoint 14:</u> A northerly view from the entrance to Wood Farm on Bustomley Lane, 2km south of the site. (Photograph taken 8th June 2023)	The view is generally typical of the longer distance views from a limited number of farmsteads and residential properties on high ground on the south side of the Blithe Valley. However, the farmhouse at Wood Farm appears to be fairly well enclosed by agricultural buildings.	c.1.8km south of the southern boundary of the extension area (Field D) and 2.3km south of the north-eastern part of the extension area. Similar views are likely to be available from receptors at a distance of 2.5km or more from the site.	Low Although most residents will generally have a high sensitivity to visual change, the distance of receptors from the site will tend to diminish sensitivity.	Existing views to the north side of the valley are generally of a patchwork of pastoral fields broken up by a network of hedgerows. Distant views of parts of the consented Blythe Solar Farm site and the Proposed Development site are available from Wood Farm and other elevated locations on the south side of the valley. At some locations on the south side of the valley, views extend along a large part of the valley, encompassing the Upper Newton Solar Farm to the west, the Totmonslow Farm site to the north-west and potentially the prospective development site at Upper Leigh to the east.

9 Landscape Sensitivity

- 9.1 The site and the surrounding area are not subject to any national or local designations but comprise a relatively remote and intact rural landscape reflective of the relevant ‘Character Areas’ and ‘Character Types’ defined within the national and local Landscape Character Assessments. Despite the imposition of urbanising elements such as the A50, the Stoke to Derby railway, overhead power lines and the existing solar farm at Lower Newton, the inherent character of the site and surrounding area is that of a traditional pastoral landscape of hedge and tree lined fields, grazing cattle, remote footpaths and trackways and isolated farmsteads, all contained within a broad river valley setting.
- 9.2 There are no specific features of high landscape value within the site or surrounding landscape, although there are valued landscape elements such as hedgerows, hedgerow trees and the prevailing field pattern which contribute to the existing character and scenic quality of the landscape. On balance, the overall condition and scenic quality of the site and the local landscape is judged to give rise to a ‘moderate’ sensitivity.
- 9.3 But from a landscape character perspective, it is predicted that the site and surrounding landscape would be quite sensitive to any significant changes in composition brought about by additional large-scale solar development.
- 9.4 Hence, the cumulative visual effects associated with the existing Lower Newton Solar Farm scheme, the consented Blythe Solar Farm and the recently consented solar development at Totmonslow Farm to the north of the A50, could lead to a perceived erosion of the inherent rural character of the local area, particularly in views across the valley from the south and south-west. But large-scale solar development will not result in the loss of valued landscape elements such as hedgerows and trees, and the prevailing field pattern.
- 9.5 It should be recognised that landscape sensitivity is also measured by the extent to which a landscape can accommodate change of a particular type without unacceptable adverse effects upon its character, value or quality. At the time of writing of this assessment there is another planning application under consideration for a 49.4 hectare solar farm at Upper Leigh (Application Ref.: SMD/2023/0059), on land to the immediate east of Blythe House Farm. This development, in association with the existing and approved solar developments in the locality, could lead to a significant change in the character of a large swathe of landscape within the Blithe Valley and loss of the inherent scenic qualities of the local area.
- 9.6 Were the Upper Leigh development to be approved, then the cumulative impact of this and the existing consented and built developments within the local area could potentially elevate the overall sensitivity of the wider landscape from ‘moderate’ to ‘high’.

10 Proposed Landscape Mitigation and Enhancement

- 10.1 The purpose of mitigation measures is to avoid, reduce or offset any significant adverse effects upon the landscape or visual amenity arising from a proposed development.

10.2 The strategy outlined below has been formulated to mitigate the potential landscape and visual impacts resulting from the Proposed Development and where possible to enhance the overall landscape character and condition of the site and the local area. The proposals have been developed in consideration of the baseline landscape and visual assessment, local planning policies and the guidelines within the local Landscape Character Assessment.

10.3 The following mitigation measures have been recommended, and duly incorporated, into the proposed development:

- Retain all hedgerows and trees in and around the site (except where access is required) to provide visual screening and to preserve existing landscape structure and character.
- Establish an adequate development standoff to all perimeter hedgerows and hedgerow trees to protect rooting zones in order to maintain the health and viability of all existing trees and hedgerows, and to allow access for hedgerow maintenance.
- Plant and establish a new native hedgerow along the open boundaries of Fields A and B, to screen direct views of the Proposed Development from public footpath 'Checkley 5'.
- Plant and establish a new native hedgerow adjacent to the south-eastern boundary of Field E, to screen direct views of the Proposed Development from public footpath 'Checkley 5'. It is proposed that the new hedgerow will stand off the existing hedgerow by at least 8m in order to minimise enclosure and to provide a relatively wide footpath corridor.
- Plant and establish a new native hedgerow adjacent to the north-eastern boundary of Field E, to screen direct views of the Proposed Development from public footpath 'Checkley 7'. It is proposed that the new hedgerow will stand off the existing hedgerow by at least 8m in order to minimise enclosure and to provide a relatively wide footpath corridor.
- Plant and establish a new native woodland belt adjacent to the north-eastern boundary of Field D, to screen views of the site from Blythe House Farm and from public footpath 'Checkley 5' on rising ground to the north.
- Plant and establish a new native woodland belt adjacent to the railway, to the south-west of Fields E and F, to screen views of the site from the railway, and to moderate the visual impact upon receptors within the wider landscape to the south and south-west.
- Plant and establish a narrow band of native shrub planting on bunding around the proposed substation compound.
- 'Gap-up' existing hedgerows as necessary to reinforce visual screening on all field boundaries.

- Manage all existing hedgerows by annual trimming to maintain density for screening purposes and allow all low hedges to grow to a minimum height of 3m to assist in screening the development.
- Manage grassland within the development areas, and on the undeveloped margins, to promote floristic diversity and habitat enhancement through potential low intensity sheep grazing.
- Retain, protect and manage all existing ponds within and adjacent to the site. Allow for undeveloped wildlife buffers around all ponds.
- Establish and manage a dedicated 'bird mitigation zone' to the east of Field D to provide suitable habitat for ground nesting birds and to promote floristic diversity.
- Plant only native and locally indigenous tree and shrub species to provide biodiversity enhancement. All new hedgerows to include a diverse mix of native hedgerow species.
- Manage the site to promote biodiversity net gain.
- Manage, enhance and promote all existing public footpath routes within and adjacent to the site, ensuring routes are adequately way-marked, paths are maintained, and new stiles / gates are erected.

11 Visual Effects of the Development

- 11.1 The assessment of the development's potential visual effects has been undertaken in accordance with the methodology set out in **Appendix D**.
- 11.2 The baseline visual assessment demonstrates that the proposed PV development site and relocated substation site are locally visible from a number of public footpaths on the perimeter of the site, but are also visible to some extent from a network of public rights of way and a small number of isolated dwellings and farmsteads over a wide area to the south and south-west. Near to the site, there is one residential property, the farmhouse at Blythe House Farm, which has limited views of the site.
- 11.3 Without any mitigation in place, the more significant views of the Proposed Development are likely to be from:
- Public footpath 'Checkley 5', where it runs adjacent to Fields A, B and E.
 - Public footpath 'Checkley 7', immediately to north of Field E.
 - The access road to Blythe House Farm, where it runs adjacent to Fields A and B, and with some more elevated views of Fields D & E.
 - The railway to the south of Fields E & F.

- Some public rights of way within the wider landscape to the south and south-west, more particularly those rights of way just south of the river or with more elevated views from higher ground.

- 11.4 During construction works and upon completion (but prior to the establishment of the mitigation planting), the visual effects of the development upon receptors on some sections of public footpaths 'Checkley 5' and 'Checkley 7' adjacent to the extension areas are predicted to be 'major' and adverse.
- 11.5 In the medium term, the mitigation planting around the site is likely to significantly reduce the adverse impacts upon the footpath receptors highlighted above, but the planting will potentially enclose and change the visual character of a number of footpath routes around the site. In the medium to long-term, the visual effects of the development upon footpaths immediately adjacent to the site will be of 'minor' to 'moderate' significance.
- 11.6 The visual effect of the Proposed Development in Field D upon the farmhouse at Blythe House Farm is predicted to be 'moderate' adverse, although this will potentially reduce to 'minor' or 'negligible' once the proposed woodland planting on the northern edge of the field becomes established.
- 11.7 Rail passengers on the Derby to Stoke railway line will receive relatively open views of the PV development and the substation in Fields E and F, which is likely to give rise to a 'moderate' adverse visual effect. Notwithstanding this, the proposed woodland planting adjacent to the railway will effectively screen the site in the long term, thus reducing any visual impacts to 'minor' or 'negligible'.
- 11.8 In the wider landscape, it is anticipated that the Proposed Development will have some 'moderate' adverse visual effects upon the network of public rights of way to the south and south-west of the site. Some partial long-distance views of the development may also be gained from a small number of farmsteads and isolated residential properties within the wider area to the south and south-west, but the effects of the extension development upon receptors at these locations are generally predicted to be 'minor'.
- 11.9 However, there is the potential for cumulative solar development along the northern slopes of the valley to have a more significant visual effect upon an extensive area of countryside south and south-west of the river, which could change the inherent character of a large part of the valley.
- 11.10 A more detailed assessment of the visual impacts of the proposed PV development upon the selected representative viewpoints are set out in **Tables 2 and 3** below. **Table 2** assesses the impacts during construction (lasting approximately 16 weeks) and immediately post completion of the development, whereas **Table 3** considers the predicted impacts at 8 to 10 years post completion when the proposed hedge planting and plantations should be well established, noting that planting will have begun to establish and will be beginning to mitigate potential effects from the development in the intervening period.

Table 2: Visual Effects of the Development during construction (16 weeks estimated duration) and within the first 1 to 2 years post completion (with reference to **Figures 8 & 9 & Photo-sheets 1–14**):

Visual Receptors & Viewpoint Location	Receptor Sensitivity	Magnitude or Scale of Visual Effect (Magnitude of Change)	Nature of Effect	Mitigation	Overall Significance of the Visual Effect	Significance Rationale / Comment
<u>Photo Viewpoint 1:</u> Users of public footpath 'Checkley 5' and residents / visitors accessing Blythe House Farm, on the track to the immediate north-east of Field A.	High	Substantial	Adverse	Hedgerow planting along the field boundary.	Major	The construction activities and completed PV development will be immediately visible within the adjacent field from a short length of the track / public footpath prior to the establishment of the proposed hedgerow planting. The track will also be utilized by construction vehicles.
<u>Photo Viewpoint 2:</u> Users of public footpath 'Checkley 5' and residents / visitors accessing Blythe House Farm, on the track to the immediate north-west and west of Field B.	High	Substantial	Adverse	Hedgerow planting along the field boundary.	Major	The site boundary is currently unenclosed. Hence, the construction activities and completed development will dominate the view from this length of footpath and access track prior to the establishment of the proposed hedgerow planting. The track will also be utilized by construction vehicles.
<u>Photo Viewpoint 3:</u> Users of public footpath 'Checkley 5' and the access track to Blythe House Farm, immediately south of Fields A & B.	High	Substantial	Adverse	Hedgerow planting along the field boundaries.	Major	The construction activities and completed PV development will be immediately visible within the adjacent fields from this location prior to the establishment of the hedgerow planting.

Visual Receptors & Viewpoint Location	Receptor Sensitivity	Magnitude or Scale of Visual Effect (Magnitude of Change)	Nature of Effect	Mitigation	Overall Significance of the Visual Effect	Significance Rationale / Comment
<u>Photo Viewpoint 4:</u> Users of public footpath 'Checkley 5', to the immediate north-east of the consented development site and 260-300m north-east of proposed development Fields D, E & F.	High	Substantial	Adverse	Hedgerow planting on the boundary of the consented development site and woodland planting to the north of Field D.	Major	The construction operations and completed PV development within the consented development site and the extension areas will be immediately visible at this location.
<u>Photo Viewpoint 5:</u> Users of public footpath 'Checkley 5' and 'Checkley 7', to the immediate north-east of extension Field E.	High	Substantial	Adverse	Hedgerow planting on the edge of the development area.	Major	The construction operations and completed PV development within the extension area will be immediately visible at this location prior to the establishment of the proposed hedgerow planting.
<u>Photo Viewpoint 6:</u> People using public footpath 'Checkley 7' immediately north of the proposed wildlife mitigation area associated with the consented development and 75m north / north-west of extension Field F.	High	Moderate	Adverse	The planting of a woodland belt along the southern edge of the wildlife mitigation area.	Moderate	The construction activities and completed development within Field F are likely to be visible in the near distance prior to the establishment of the planting in the wildlife mitigation area.
<u>Photo Viewpoint 7:</u> People using public footpath 'Checkley 5' immediately south-east/east of extension Field E.	High	Substantial	Adverse	Hedgerow planting along the field boundary. Screen planting around the substation compound.	Major	The development boundary is currently unenclosed. Hence, the construction activities and completed development (including the proposed substation area) will dominate the view from this length of footpath

Visual Receptors & Viewpoint Location	Receptor Sensitivity	Magnitude or Scale of Visual Effect (Magnitude of Change)	Nature of Effect	Mitigation	Overall Significance of the Visual Effect	Significance Rationale / Comment
Photo Viewpoint 7 (continued)						prior to the establishment of the proposed hedgerow planting and planting around the substation.
Photo Viewpoint 8: Rail passengers on the Derby to Stoke railway line, c. 80m to the south of extension Field E	Low to Moderate	Moderate to Substantial	Adverse	Planting a woodland belt adjacent to the railway boundary. Screen planting around the substation compound.	Moderate	Construction activities and the completed development (including the substation) will be quite visible from the railway in views to the north, but views will be transient and rail passengers are judged to have a low to moderate visual sensitivity to their surroundings. The proposed mitigation planting will be ineffective as a visual screen until it is well established.
Photo Viewpoint 9: Residents at Blythe House Farm. The view is from Field D looking back towards the farmhouse.	High	Moderate	Adverse	Establishing a narrow woodland belt on the north-eastern edge of Field D.	Moderate	The majority of the extension site is well screened from the farmhouse by mature trees. However, the site construction works and completed development may have moderately adverse visual impacts upon residents at the farmhouse where there are partial views of the northern part of Field D from some first and second floor windows.

Visual Receptors & Viewpoint Location	Receptor Sensitivity	Magnitude or Scale of Visual Effect (Magnitude of Change)	Nature of Effect	Mitigation	Overall Significance of the Visual Effect	Significance Rationale / Comment
<u>Photo Viewpoint 10:</u> Users of public footpath 'Checkley 15' within the field to the south-east of Field D (c. 30m from the development area).	High	Slight - Moderate	Adverse	Hedgerow management and planting up gaps in the hedgerow along the intervening boundary.	Moderate	The site is fairly well screened from this footpath, but construction activities and the completed development will be visible at close distance where there are gaps in the intervening hedge and potentially as filtered views in the winter.
<u>Photo Viewpoint 11:</u> Users of public footpath 'Draycott in the Moors 15' just to north of Paynsley Hall Farm, 700m west of the proposed extension site	High	Low	Adverse	Planting a woodland belt north of the railway (to the south of Fields E and F).	Minor	The construction of the extension development and its completion will have only limited additional impact over and above the cumulative visual impact of the exiting Lower Newton solar farm and the consented Blythe House development. However, the cumulative visual impact of all three developments will be more substantial.
<u>Photo Viewpoint 12:</u> Users of public footpath 'Checkley 8' and residents at New House Farm, 1.2km south-west of the extension site.	High for footpath users, but Moderate for residents at New House Farm	Moderate	Adverse	Establishing a woodland plantation to the south of Fields E & F.	Moderate	From this elevated viewpoint, Fields E & F and parts of the consented Blythe House Farm site are clearly visible in the distance. Hence, these developments are predicted to give rise to a 'moderate' adverse impact (although the impact on the farmhouse at New House Farm is

Visual Receptors & Viewpoint Location	Receptor Sensitivity	Magnitude or Scale of Visual Effect (Magnitude of Change)	Nature of Effect	Mitigation	Overall Significance of the Visual Effect	Significance Rationale / Comment
Photo Viewpoint 12 (continued)						likely to be less significant due to more limited views). However, the cumulative visual impact of the Blythe Solar development in combination with the existing Lower Newton site is likely to have a more major visual impact.
Photo Viewpoint 13: Users of public footpath 'Checkley 63', c.530m south-west of the extension site.	High	Moderate	Adverse	Establishing a woodland plantation to the south of Fields E & F.	Moderate	The construction activities and completed development in Fields D, E & F will be visible. But the cumulative effects associated with the consented Blythe Solar development are likely to give rise to a moderate visual impact across the valley.
Photo Viewpoint 14: This viewpoint is typical of views from Wood Farm and long-distance views from other farmsteads and isolated dwellings on the south side of the valley at 1.8 – 2.5km distance from the site.	Low	Slight - Moderate	Adverse	Establishing woodland plantations to the south of the southern extension area and planning up / managing hedgerows throughout the site.	Minor - Moderate	The construction activities and completed development within the extension areas and within the existing site will be partially visible at this location although views will be relatively distant in nature. However, the overall cumulative impact could be of minor to moderate significance, with the potential for solar development being visible across a substantial part of the valley to the north from a number of distant viewpoints.

Table 3: Visual Effects of the Development at approximately 8-10 years post completion (with reference to **Figures 8 & 9** and **Photo-sheets 1 – 14**):

Visual Receptors & Viewpoint Location	Receptor Sensitivity	Magnitude or Scale of Visual Effect (Magnitude of Change) in relation to the PV development	Nature of Effect	Mitigation	Overall Significance of the Visual Effect	Significance Rationale / Comment
Photo Viewpoint 1: Users of public footpath 'Checkley 5' and residents / visitors accessing Blythe House Farm, on the track to the immediate north-east of Field A.	High	Slight	Neutral to Adverse	Hedgerow planting along the field boundary.	Minor - Moderate	The proposed hedgerow planting should effectively screen the development in Field A after 8-10 years growth, although there may be some limited filtered views into the site in winter. The footpath and trackway will become more enclosed and the existing views across the valley to the south-west will be partly obscured by the hedgerow planting. However, hedgerows in this landscape are a common feature and are not considered to be incongruous.
Photo Viewpoint 2: Users of public footpath 'Checkley 5' and residents / visitors accessing Blythe House Farm, on the track to the immediate north-west and west of Field B.	High	Slight	Neutral to Adverse	Hedgerow planting along the field boundary.	Minor - Moderate	The proposed hedgerow planting should effectively screen the development in Field B after 8-10 years growth, although there may be some limited filtered views into the site in winter. The footpath and trackway will also become more enclosed which will change the character of the trackway.

Visual Receptors & Viewpoint Location	Receptor Sensitivity	Magnitude or Scale of Visual Effect (Magnitude of Change) in relation to the PV development	Nature of Effect	Mitigation	Overall Significance of the Visual Effect	Significance Rationale / Comment
<u>Photo Viewpoint 3:</u> Users of public footpath 'Checkley 5' and the access track to Blythe House Farm, immediately south of Fields A & B.	High	Slight	Neutral	Hedgerow planting along the field boundary.	Minor	The proposed hedgerow planting should screen the development in Fields A & B after 8-10 years growth, although there may be some limited filtered views into the site in winter. The existing view will become slightly more enclosed.
<u>Photo Viewpoint 4:</u> Users of public footpath 'Checkley 5', to the immediate north-east of the consented development site and 260-300m north-east of proposed development Fields D, E & F.	High	Slight	Neutral to Adverse	Hedgerow planting on the boundary of the consented development site and woodland planting to the north of Field D.	Minor - Moderate	The proposed hedgerow planting adjacent to the consented Blythe Solar Farm should screen the development after 8-10 years growth, although there may be some limited filtered views into the site in winter. Likewise, the planting on the northern edge of field D should screen the solar arrays within Field D. However, the hedgerow planting will obscure and reduce the existing wide-ranging views across the valley to the south-west.
<u>Photo Viewpoint 5:</u> Users of public footpath 'Checkley 5' and 'Checkley 7', to the immediate north-east of extension Field E.	High	Slight	Neutral to Adverse	Hedgerow planting on the edge of the development area.	Minor - Moderate	The proposed hedgerow planting should screen the development in Field E after 8-10 years growth, although

Visual Receptors & Viewpoint Location	Receptor Sensitivity	Magnitude or Scale of Visual Effect (Magnitude of Change) in relation to the PV development	Nature of Effect	Mitigation	Overall Significance of the Visual Effect	Significance Rationale / Comment
Photo Viewpoint 5 (continued)						there may be some limited filtered views into the site in winter. However, the footpaths will also become more enclosed and the existing long-distance views across the valley to the south-west will be reduced.
Photo Viewpoint 6: People using public footpath 'Checkley 7' immediately north of the proposed wildlife mitigation area associated with the consented development and 75m north / north-west of extension Field F.	High	Slight	Neutral	The planting of a woodland belt along the southern edge of the wildlife mitigation area.	Minor	The development in Field F is likely to be screened by the proposed woodland planting, but the more open distant views to the south-west will be lost.
Photo Viewpoint 7: People using public footpath 'Checkley 5' immediately south-east/east of extension Field E.	High	Slight	Neutral to Adverse	Hedgerow planting on the edge of the development area. Screen planting around the substation compound.	Minor - Moderate	The proposed hedgerow planting should screen the development in Field E (and the substation) after 8-10 years growth, although there may be some limited filtered views into the site in winter. However, the footpath will also become more enclosed which will change its character and reduce views out into the wider landscape.

Visual Receptors & Viewpoint Location	Receptor Sensitivity	Magnitude or Scale of Visual Effect (Magnitude of Change) in relation to the PV development	Nature of Effect	Mitigation	Overall Significance of the Visual Effect	Significance Rationale / Comment
Photo Viewpoint 8: Rail passengers on the Derby to Stoke railway line, c. 80m to the south of extension Field E	Low to Moderate	Negligible - Slight	Neutral	Planting a woodland belt adjacent to the railway boundary. Screen planting around the substation compound.	Minor	The proposed mitigation planting should effectively screen the development within 8 to 10 years.
Photo Viewpoint 9: Residents at Blythe House Farm. The view is from Field D looking back towards the farmhouse.	High	Slight - Negligible	Adverse / Neutral	Establishing a narrow woodland belt on the north-eastern edge of Field D.	Minor - Negligible	The development in Field D should become relatively well screened by the existing trees and new planting after a period of 8 to 10 years. Some views of the site could remain for second floor windows and there may be filtered views during the winter, but these views will diminish as the planting continues to mature. Visual impacts will become negligible in the long term due to the proposed planting.
Photo Viewpoint 10: Users of public footpath 'Checkley 15' within the field to the south-east of Field D (c. 30m from the development area).	High	Negligible - Slight	Neutral	Hedgerow management and planting up gaps in the hedgerow along the intervening boundary.	Negligible - Minor	The hedgerow management and 'gapping-up' should effectively screen the development after 8 - 10 years, although some minor filtered views might remain in the winter.

Visual Receptors & Viewpoint Location	Receptor Sensitivity	Magnitude or Scale of Visual Effect (Magnitude of Change) in relation to the PV development	Nature of Effect	Mitigation	Overall Significance of the Visual Effect	Significance Rationale / Comment
<u>Photo Viewpoint 11:</u> Users of public footpath 'Draycott in the Moors 15' just to north of Paynsley Hall Farm, 700m west of the proposed extension site	High	Negligible	Neutral	Planting a woodland belt north of the railway (to the south of Fields E and F).	Negligible	The proposed development will be screened by planting adjacent to the railway, although there may be some limited distant views of development within the consented Blythe Solar Farm area. However, the cumulative visual effects of extensive solar development along the northern valley side (potentially including future development at the Upper Leigh site) is likely to cause greater visual impact (as discussed in Section 13 of this report)
<u>Photo Viewpoint 12:</u> Users of public footpath 'Checkley 8' and residents at New House Farm, 1.2km south-west of the extension site.	High for footpath users, but Moderate for residents at New House Farm	Slight - Moderate	Adverse	Establishing a woodland plantation to the south of Fields E & F.	Minor - Moderate	The proposed planting along the railway will reduce the impact of the development within Fields E & F to some extent, but parts of the consented Blythe Solar Farm site will remain visible. Impact upon the farmhouse at New House Farm is predicted to be minor to negligible. However, the cumulative visual effect of extensive solar development along the northern valley side (potentially including future development

						at the Upper Leigh site) is likely to cause
Visual Receptors & Viewpoint Location	Receptor Sensitivity	Magnitude or Scale of Visual Effect (Magnitude of Change) in relation to the PV development	Nature of Effect	Mitigation	Overall Significance of Visual Impact	Significance Rationale / Comment
<u>Photo Viewpoint 12</u> (continued)						a more substantial visual impact (see Section 13 of this report).
<u>Photo Viewpoint 13:</u> Users of public footpath 'Checkley 63', c.530m south-west of the extension site.	High	Slight - Moderate	Adverse	Establishing a woodland plantation to the south of Fields E & F.	Minor - Moderate	The proposed planting along the railway will reduce the visual effect of the development within Fields E & F to some extent, but parts of the consented Blythe Solar Farm site will remain visible. Again, the cumulative visual effect of extensive solar development along the northern valley side (potentially including future development at the Upper Leigh site) is likely to cause more substantial visual effects.
<u>Photo Viewpoint 14:</u> This viewpoint is typical of views from Wood Farm and long-distance views from other farmsteads and isolated dwellings on the south side of the valley at 1.8 – 2.5km distance from the site.	Low	Slight	Adverse	Establishing woodland plantations to the south of the southern extension area and planning up / managing hedgerows throughout the site.	Minor	It is likely that some development within the proposed extension area and within the existing Blythe Solar Farm site will remain visible, but the visual effect will potentially reduce over time with the establishment and management of vegetation within the sites.

						However, the overall cumulative effect of other solar
Visual Receptors & Viewpoint Location	Receptor Sensitivity	Magnitude or Scale of Visual Effect (Magnitude of Change) in relation to the PV development	Nature of Effect	Mitigation	Overall Significance of Visual Impact	Significance Rationale / Comment
Photo Viewpoint 14: (continued)						developments along the northern valley side could cause more significant visual effects at a number of locations across the valley.

12 Landscape Effects of the Development

- 12.1 The assessment of the development's potential landscape effects has been undertaken in accordance with the methodology set out in **Appendix D**.
- 12.2 The Proposed Development will not result in any significant loss of trees, hedgerows or other established landscape features, and the site can remain in agricultural use if the grassland between the solar panels is utilised for sheep grazing. However, the erection of PV arrays over a relatively large area is likely to cause a major change in the prevailing rural character of the site, the magnitude of which is assessed as being 'substantial'. Hence in consideration of the site's 'moderate' landscape sensitivity, the resultant landscape effect of the proposed development is predicted to be 'major' at the immediate site level, prior to the establishment of the proposed mitigation planting.
- 12.3 Within the wider landscape, it is predicted that the Proposed Development, in association with the consented Blythe Solar Farm and the existing Lower Newton Farm site, will have a 'moderate' visual impact upon a number of receptors over a relatively extensive area to the south and south-west, which is likely to cause a 'moderate' magnitude of change in respect of local landscape character. Hence, in consideration of a 'moderate' sensitivity assigned to the local landscape, it is predicted that the proposed development is likely to give rise to a 'moderate' adverse impact upon the inherent landscape character of this section of the Blithe Valley.
- 12.4 Notwithstanding the landscape character impacts described above, the proposed planting schemes within the Proposed Development site, and within the consented Blythe Solar Farm site, will serve to reduce the visual impact of the development over a period of time (and be well established 8 to 10 years after construction ends), and this will in turn reduce the overall landscape character effects both within the immediate vicinity of the site and within the wider area. The mitigation planting and management schemes will provide significant

benefits in respect of landscape structure, habitat connectivity and biodiversity enhancement, which is likely to have a positive impact upon the landscape condition and the value of the local landscape character area.

- 12.5 The proposed development is temporary, seeking a 40-year operational period, therefore it is long term but reversible. It is proposed that all of the solar infrastructure will be removed after 40 years with the site being reinstated to its current use. Once the site is decommissioned, it is predicted that the development will have no residual adverse landscape and visual effects and the site will have benefited from additional hedgerow and woodland planting, positive landscape management and significant biodiversity enhancement.

13 Cumulative Landscape and Visual Effects

- 13.1 There is the potential for cumulative landscape and visual effects associated with other consented and proposed solar developments sited within close proximity of the Proposed Development.
- 13.2 At the present time, the only built development within the locality is the Lower Newton Solar Farm located immediately to the west and south of the approved Blythe Solar Farm site (application ref. SMD/2022/0160). The Proposed Development will form an extension to the approved Blythe Solar Farm, adjoining the approved site to the south and north-east.
- 13.3 There is one other approved development in the locality, at Totmonslow Farm (application ref. SMD/2023/0197). This site is located to the north of the A50 and north of the approved Blythe Solar Farm.
- 13.4 At the time of writing of this report, a planning application is pending determination for another solar farm at Upper Leigh (Application Ref.: SMD/2023/0059), on 49.4 hectares of land to the south-east of the Blythe Solar Farm extension site.
- 13.5 With the exception of the adjoining Blythe Solar Farm, it is unlikely that there will be any perceived cumulative landscape and visual effects within the Proposed Development site as there is little or no intervisibility with the other sites at Lower Newton and Totmonslow Farm. Likewise, the proposed solar development at Upper Leigh will not be visible from within the Proposed Development site.
- 13.6 The landscape and visual effects of the Proposed Development at the immediate site level, as described in Sections 11 and 12 of this report, take account the potential cumulative effects associated with the approved Blythe Solar Farm development.
- 13.7 However, within the wider landscape on the south-west side of the Blithe Valley, there are locations over an extensive area where all of the existing, approved and proposed developments will be visible.

- 13.8 Within this wider setting, it is predicted that there would be potential cumulative landscape and visual effects of the Proposed Development along with the approved Blythe Solar Farm and existing Lower Newton development. But once the proposed landscape planting has become established within the Blythe Solar Farm site and extension site, then the overall effects are likely to reduce in respect of landscape character, and with regard to the majority of the identified visual receptors. As mentioned in paragraph 3.7 above, the two sites (the Blythe Solar Farm, and the proposed extension) would be constructed at the same time, so there would be no time lag in landscape planting establishing between the two projects.
- 13.9 Although the proposed Totmonslow site is partially visible in long range views from the south-western side of the valley, it is predicted that the completed development will not appreciably increase the significance of the effects highlighted above.
- 13.10 However, if further solar development is granted planning permission at the Upper Leigh site, to the east of Blythe Solar Farm site, the extended area of development over a large part of the northern side of the valley would further increase the magnitude of landscape and visual effects. This could lead to a cumulative landscape character impact of solar development across a large part of the valley and could have an impact upon a number of visual receptors, particularly the network of public footpaths on the south side of the valley.
- 13.11 In the medium to long-term however, the planting and landscape mitigation proposals associated with all of the consented and proposed developments will provide some beneficial landscape impact, thus moderating the medium to long-term landscape character effects. As mentioned earlier in this report, the landscape planting for the approved Blythe Solar Farm and the proposed extension would be undertaken at the same time and would be well established 8 to 10 years after construction.
- 13.12 All of the approved and proposed solar developments are temporary and it is anticipated that all of the above ground infrastructure will be completely removed after a period of 40 years from the completion of each development. Accordingly, there would be no adverse landscape and visual effects after this period.

14 Summary

- 14.1 This Landscape and Visual Assessment has been prepared in respect of a planning application for an extension to the consented Blythe Solar Farm on an additional 24 hectares of agricultural land to at Blythe House Farm, Upper Tean, Staffordshire. The report aims to assess the potential effects of the proposed development upon the landscape character and visual amenity of the site and the local area.
- 14.2 The Proposed Development will comprise 3.1m tall photo voltaic (PV) panels covering much of the site; and transformers and associated electrical infrastructure; storage containers; internal access roads; fencing and CCTV cameras. It is also proposed to relocate the currently approved substation and DNO compounds (under permission SMD/2022/0160) from the northern boundary of the Blythe Solar Farm site to the southern boundary of the Proposed Development site.

- 14.3 The extension site occupies agricultural land on a relatively gentle south-west facing slope within the wide shallow valley of the River Blithe, orientated on a north-west to south-east alignment. The A50 trunk road extends along the north-eastern site boundary, and the Derby to Stoke-on-Trent railway line runs along the valley bottom, approximately 80m to the south-west of the site. The narrow watercourse of the River Blithe flows just south-west of the rail line. The proposed development site adjoins the consented Blythe Solar Farm site and the built Lower Newton Solar site, located to the north-west. To the south and south-west of the river, the southern flank of the Blithe Valley rises through a relatively gentle gradient to a plateau some 3km to the south-west of the site.
- 14.4 The land use of the site and local area is predominantly permanent pasture (mainly cattle grazing) although there are some fields within the surrounding area which are utilised for arable production and fodder crops. Local settlements mostly comprise scattered and isolated farmsteads.
- 14.5 Fields throughout the site are of a variable size and shape, and are mostly enclosed by a strong network of hedgerows and the proposals have been designed within that established landscape framework and context with minimal removal of trees and hedgerows, except where required for access between field compartments. Taller hedgerows and hedgerow trees are prevalent on the higher ground to the north-east which provide a relatively enclosed and intimate character to this part of the site. The larger fields on the flatter ground towards the floor of the valley are more open and exposed in character.
- 14.6 The local area is well served by public rights of way, including three public footpaths which run immediately adjacent to the site boundaries.
- 14.7 The intervisibility between the site and the surrounding landscape is influenced by the orientation of the site on a shallow south-west facing slope and the screening effects of existing and established local hedgerows, hedgerow trees and occasional woodland plantations within the landscape. The site has an extensive zone of visibility covering an arc of land within the valley floodplain and on rising ground to the south and south-west. The site's zone of visual influence potentially extends for some 2 – 2.5km to the south and south-west.
- 14.8 Most of the public rights of way which are located immediately adjacent to the site boundaries are likely to be visually affected by the Proposed Development to some degree. There are potential limited views of part of the site from one nearby residential property (Blythe House Farmhouse), and some more distant views from public footpaths and a handful of farmsteads and isolated dwellings within the wider landscape to the south and south-west.
- 14.9 The site and surrounding area are not subject to any national or local landscape designations. It comprises a relatively remote and intact rural landscape reflective of the relevant 'Character Areas' and 'Character Types' defined within the national and local Landscape Character Assessments.
- 14.10 The overall experiential character of the site and surrounding area is that of a fairly remote pastoral landscape with long range views over a rural river valley, but with urbanising influences such as the busy A50 dual carriageway, the Stoke to Derby railway line, overhead electricity transmission lines and an existing solar development at Lower Newton Farm. The site and surrounding area are judged to have a 'moderate' landscape sensitivity, although

the potential for further solar development over a wider area along the valley could elevate the sensitivity of the landscape to this type of development.

- 14.11 Mitigation proposals have been put forward in order to reduce any potential landscape and visual effects caused by the extension development (as shown on **Figure 10**). The main mitigation schemes are to establish new native woodland to the south of the site and to the immediate south-west of Blythe House Farmhouse; to plant and establish new native hedgerows along the public footpaths on the site boundaries; to 'gap-up' existing hedgerows; and to create a dedicated ground nesting bird mitigation zone to the south-east of the development area. These mitigation schemes are designed to assist in visually screening the development from identified receptors and to provide landscape and biodiversity enhancement.
- 14.12 Without the mitigation planting in place (or prior to its establishment), the proposed extension development is predicted to have 'major' adverse visual effects upon receptors on sections of public footpaths 'Checkley 5' and 'Checkley 7'. There will also be 'moderate' adverse effects upon views from some first and second floor windows at Blythe House Farmhouse. However, within a period of 8 to 10 years, the mitigation planting around the site is likely to reduce the adverse impact upon these receptors to 'minor' to 'moderate' significance, albeit some of the footpath routes will become more enclosed, resulting in a perceived change of character.
- 14.13 In the wider landscape, it is anticipated that the development will have some 'moderate' adverse visual effects upon the network of public rights of way, and some 'minor' impacts upon a small number of residential properties at a distance to the south and south-west. However, the proposed planting around the site will assist in reducing visual impacts in the wider landscape over a period of time, and will be well established in 8 to 10 years.
- 14.14 In respect of effects upon landscape character, the erection of PV arrays over a relatively large area is predicted to have a 'major' impact at the immediate site level (i.e: within the site itself), prior to the establishment of the proposed mitigation planting. Within the wider landscape, it is expected that the proposed extension development will give rise to a 'moderate' adverse impact upon the inherent landscape character of this section of the Blithe Valley, particularly in consideration of potential cumulative impacts alongside the existing solar farm at Lower Newton and the consented Blythe Solar Farm. However, if further solar development at an adjacent site to the east of Blythe House Farm is granted planning permission, then the overall magnitude of change within the local landscape could be elevated to a higher level.
- 14.15 Notwithstanding the landscape character impacts described above, the proposed planting schemes within the Proposed Development, and within the consented Blythe Solar Farm, will serve to mitigate these adverse impacts, both within the immediate vicinity of the site and within the wider area. The proposed mitigation planting and management schemes will provide significant benefits in respect of landscape structure, habitat connectivity and biodiversity enhancement, which is likely to have a positive impact upon the landscape condition and the value of the local landscape character area.

- 14.16 The proposed development is temporary, seeking a 40 year operational period, therefore it is long term but reversible. It is proposed that all of the solar infrastructure will be removed after 40 years with the site being reinstated to its current use. Hence it is predicted that once the development is decommissioned it will have no residual adverse landscape and visual effects and the site will have benefited from additional hedgerow and woodland planting, positive landscape management and significant biodiversity enhancement.

Appendix A– Figures 1 - 10

Figure 1 – Location Plan

Figure 2 – Designations Plan

Figure 3 – Public Access Plan

Figure 4 – Landscape Character Assessment

Figure 5 – Zone of Theoretical Visibility for Lower Newton Solar Farm & the Consented Blythe Solar Farm

Figure 6 – Combined Zone of Theoretical Visibility for Lower Newton Solar Farm, the Consented Blythe Solar Farm and the Proposed Extension Development

Figure 7 – Additional Zone of Theoretical Visibility for the Proposed Extension Development

Figure 8 – Photo Viewpoint Locations (1 of 2)

Figure 9 – Photo Viewpoint Locations (2 of 2)

Figure 10 – PV Array Layout

Appendix B – Photo Sheets 1 -14

Appendix C – Zone of Theoretical Visibility (ZTV) - Methodology

Overview

A Zone of Theoretical Visibility (ZTV) analysis is the process of determining the visibility of an object or an area of land within the surrounding landscape. The process is objective, in which areas of visibility or non-visibility are determined by computer software using a digital elevation dataset. The output from the analysis is used to create a map of visibility.

It should be noted that ZTVs are used as a working tool to inform a visual impact assessment and do not convey the nature or magnitude of visual effects. The actual visual effects of the proposed development are assessed through a more detailed analysis of specific viewpoints, based on field survey observations and photographic documentation.

Methodology

The ZTV studies for the Blythe Solar Farm extension project were prepared using the QGIS Visibility Analysis routine which creates a raster image that indicates the visibility (or not) of the modelled points.

Both Digital Terrain Models (DTM) and Digital Surface Models (DSM) have been used in this study. The DTM provides a 'bare-earth' representation and so does not consider visual obstructions. The DSM provides a representation of where a point (or points) would be visible from whilst taking into account visual obstructions such as buildings, and woodland. The two datasets are as follows:

- DTM - 2021 Environment Agency LiDAR supplied as georeferenced TIF files; and
- DSM - 2021 Environment Agency LiDAR National LiDAR Programme 'First Return', supplied as georeferenced TIF files.

A model of the proposed solar arrays was created by establishing a network of points at regular intervals within the defined development area and adding these to the GIS software at 3.1m above existing ground level to represent the heights of the solar arrays on the land surface. This data was then used by the GIS software to determine where the points would be visible to an eye level of 1.7m at a radius of 3km.

The Viewshed Analysis works on a defined grid, which was chosen to suit the raster dataset. In both cases a 1 sq.m grid was used to give a good level of detail. In running the Viewshed routines the effects of the curvature of the earth and light refraction were included in the calculation.

Each ZTV analysis was then overlaid on a geolocated 1:25,000 OS Explorer raster map to produce the final visualisation image.

Appendix D - Landscape and Visual Assessment Methodology

Introduction

Landscape and visual impacts are independent but inter-related issues. Landscape impact assessment aims to determine the likely changes in the physical landscape resulting from a given development and to evaluate the significance of these changes in relation to their effects upon both the quality and character of the landscape. Visual impact assessment predicts the appearance of these physical changes within the landscape and their effects upon specific viewpoints or visual receptors, such as the occupants of residential properties and the users of roads, public rights of way or other public open spaces. In summary, the objectives of Landscape and Visual Impact Assessment (LVIA) are to:

- describe and evaluate the existing landscape resource and visual amenity of the site and the surrounding area that may be affected by a given development proposal;
- determine the sensitivity of the existing landscape resource and its capacity to accept change;
- identify and determine the nature and extent of any direct effects of the development upon physical components within the landscape, the introduction of new or uncharacteristic features into the landscape and the effect of these changes upon the landscape character and quality of the site and surrounding area;
- determine the extent to which the development will be visible in the wider landscape;
- locate the key visual receptors, determine the sensitivity of these receptors and assess the likely changes in views that may result from the development;
- evaluate the magnitude and significance of effects upon both visual receptors and the overall character and quality of the landscape;
- determine and evaluate any cumulative impacts that may be caused by the proposed development in relation to other known developments of a similar nature in the surrounding area;
- determine potential measures to reduce or mitigate the impacts of the proposed development;

The methodology set out below draws upon a variety of existing and emerging publications, the most relevant being the 'Guidelines for Landscape and Visual Impact Assessment' (*Landscape Institute and the Institute of Environmental Management and Assessment, 3rd Edition 2013*).

Landscape Assessment

Landscape assessment involves an identification and analysis of various factors pertaining to

the site and surrounding area. These factors include:

- **physical resources** - such as geology, landform, trees, hedgerows, built structures, land use etc.;
- **landscape quality or condition** – the physical state of the landscape, its state of repair or its intactness from a visual, functional and ecological perspective.
- **landscape character** – the distinct, recognisable and consistent pattern of elements (or physical resources) within the landscape that makes one landscape different from another. Character can be defined by particular combinations of geology, landform, soils, vegetation, land use, field patterns and human settlement, but may also be influenced by the condition or management of the landscape.
The landscape character of a particular area can be determined through published character assessments or by undertaking a site specific character assessment in accordance with the 'Landscape Character Assessment Guidance for England and Scotland' (*Countryside Agency and Scottish Natural Heritage 2002*);
- **landscape value** –the relative importance or value of the landscape as expressed through national or local designation, or by consensus or public recognition. The value of a particular landscape may be defined through its unique character, scenic beauty, quality, rarity, tranquillity, cultural and historic associations or through biodiversity and conservation interest.

The baseline landscape assessment is undertaken through a combination of desktop research and analysis and subsequent field assessment. The desk based assessment will involve a review of relevant designations, planning policy and existing landscape assessments, plus an analysis of Ordnance Survey maps and aerial photographs. The field work will verify and expand upon information gathered through the desktop exercise, with particular consideration of the existing landscape elements in and around the site and how these contribute to the overall character of the local landscape. Judgemental assessments can also be carried out in the field to reflect upon issues such as landscape condition, visual amenity, psychological perceptions and how people are perceived to use or value the site or local area.

The landscape impact or significance of a particular development can be evaluated by assessing the sensitivity of the existing landscape resource in combination with the likely magnitude of landscape change brought about by the development.

Landscape Sensitivity

Landscape sensitivity is a term applied to landscape character and the associated visual resource, combining judgements of their susceptibility to the specific development type or other change being considered together with the value(s) related to that landscape and visual resource. Landscape sensitivity may be regarded as a measure of the resilience, or capacity, of a landscape to withstand specified change arising from development types or land management practices, without undue negative effects on the landscape and visual baseline and their value.

Landscape susceptibility is the degree to which a defined landscape and its associated visual qualities and attributes might respond to the specific development type or other change without undue negative effects on landscape character and the visual resource.

Sensitivity is informed by judgements concerning landscape susceptibility and value.

In most instances landscape sensitivity can be evaluated based on the landscape value criteria set out in **Table 1** below:

Sensitivity	Criteria	Example
High	A landscape of particular distinctive character or highly valued for its scenic quality or rarity. A landscape where the intrinsic character may be sensitive or very sensitive to change or where valued landscape elements are deemed to be very susceptible to change or are irreplaceable.	Designated landscapes such as World Heritage Sites, National Park, AONB, AGLV or landscapes with nature conservation designations such as SSSIs and SACs. Landscapes that are valued for their historical or cultural associations or are deemed to possess unique features or character.
Moderate	A landscape of valued characteristics of medium importance, scenic quality or rarity. A landscape that may be reasonably tolerant to moderate changes without adversely affecting its intrinsic character.	Undesignated landscapes but value perhaps expressed through existing landscape assessment, planning policy, non-official publications or through its demonstrable use or appreciation by the public. Landscapes that exhibit a relatively positive and attractive character, but may have evidence of alteration to, or degradation of some inherent landscape features.
Low	A landscape of low importance which is not particularly valued for its scenic quality or rarity and is potentially tolerant of substantial change without causing significant harm, or where regeneration or landscape enhancement may significantly improve its quality / condition.	Areas that are deemed to have few, if any, valued landscape features, possibly identified for improvement or regeneration through planning policy. Or where the presence of urban or uncharacteristic features has significantly degraded the intrinsic quality and character of the landscape.

Table 1: Landscape Sensitivity Criteria

However, landscapes can vary in their capacity to accommodate different forms of development. Sensitivity is thus not absolute, but is likely to vary according to specific

characteristics of an individual site or landscape area, the nature of the proposed development and the type of change being considered.

Magnitude of Landscape Effects

In the assessment of landscape impacts, the magnitude of landscape change brought about by a development can be determined by a combination of the following factors:

- The scale or extent of the landscape effect.
- The duration of the effect – whether temporary or permanent. For temporary effects this should be qualified by whether the effect is short-term, medium-term or long-term. In most situations in respect of landscape effects, short-term can be defined as 0-5 years, medium-term as 5-15 years and long-term as 15 years plus.
- The nature of the effect – whether adverse or beneficial (negative or positive) or neutral.

Example criteria for the evaluation of the magnitude of landscape change are given in Table 2 below. However, it is important to qualify or substantiate the scale of change with reference to the nature and duration of effects. For example a ‘substantial’ short-term temporary effect may be considered to be less significant than a permanent ‘moderate’ scale effect.

Magnitude of Effect	Typical Criteria
Substantial	A major change in landscape character over an extensive area or a very intensive change over a more limited area. A total loss or alteration to key elements/features/characteristics or the introduction of significant alien/uncharacteristic features.
Moderate	Prominent but not extensive changes to landscape character over a limited area. Partial loss or alteration to key elements/features/characteristics or the introduction of new / uncharacteristic features that are not perceived to have a significant impact upon the wider landscape character.
Slight	Minor changes in landscape character. Minor loss or alteration of key elements/features/characteristics or introduction of new elements that are not substantially uncharacteristic of the receiving landscape.
Negligible	Virtually imperceptible change in landscape character. Very minor loss or alteration to key elements/features/characteristics or introduction of new elements that are not uncharacteristic of the receiving landscape.

Table 2: Criteria for the Magnitude of landscape effects

Visual Assessment

Visual Assessment involves identifying locations where a given development will be visible from, and an evaluation of the visual effect the development will have upon individual receptors. Visual receptors include the occupants of residential properties and settlements, places of work, users of roads and public footpaths and public vantage points.

In order to identify available views and potential visual receptors it is necessary to define a 'zone of visual influence' (ZVI). The ZVI represents an area from which all or part of the proposed development would potentially be visible and defines the area for the visual assessment. A theoretical zone of visual influence (sometimes known as a 'zone of theoretical visibility' – ZTV) can be established by the use of specialist computer software in conjunction with a Digital Surface Model (DSM), which is a topographical model that captures both the environment's natural terrain and artificial surface features such as buildings, trees, hedgerows and other objects. However, the use of computerised topographical modelling to establish a ZVI is not always absolutely accurate and any desk-based assessment should always be verified by undertaking a field survey in order to establish a precise zone of visibility and to assess the specific nature and sensitivities of individual visual receptors. The visual impact or significance of a development on a particular visual receptor can be evaluated by assessing the sensitivity of the visual receptor in combination with the likely magnitude or scale of visual change brought about by the development.

Visual Sensitivity

The sensitivity of visual receptors is influenced by factors such as the location and context of the viewpoint, the extent of available views, whether a view is recognised for its special scenic qualities, the numbers of viewers affected or the interests of viewers in their environment. For example, open views of a proposed development site from residential properties or from a valued landscape are regarded as being less able to accommodate change than views from an industrial site where viewers may have limited interest in their external environment.

Table 3 below defines example ratings and criteria for visual sensitivity:

Sensitivity	Criteria	Example
High	Views experienced by people with a propriety interest in their environment or viewers with prolonged viewing opportunities or where many viewers are affected. Or where views are deemed to be 'special' due to historical or cultural references or scenic quality.	• Occupiers of residential properties or residential communities • Users of public rights of way and public open spaces or valued landscapes. • Viewpoints / views within a landscape that has important references to historical events, cultural heritage or the arts, or where views are valued for their scenic qualities.
Moderate	Views experienced by people who only have a moderate or relatively short-term interest in their environment or where a sensitive receptor is located at a significant distance from the proposed development.	• People engaged in outdoor sporting activities • Schools • Motorists or passengers travelling in cars or trains through the landscape.
Low	Views experienced by people having a passing or momentary interest in their environment or where the viewers are engaged in	• Motorists travelling at speed on main roads or motorways. • People at work in commercial or industrial premises

	activities which limit their appreciation of the environment.	
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Table 3: Visual Sensitivity Criteria

However, the classification of the sensitivity of visual receptors involves a degree of professional judgement and will be site (or receptor) specific. The hierarchy of the examples given in Table 3 above is not totally rigid, since the sensitivity of one type of visual receptor may vary according to specific circumstances. For example, some motorists may decide to drive on a specific route for its scenic qualities or may regularly use a particular road which is local to their home. Under these circumstances the motorist may have a higher sensitivity to visual changes within the landscape.

Magnitude of Visual Effects

In the evaluation of the effects on views and visual amenity of the identified receptors, the magnitude of visual change is determined by reference to the following factors:

- The distance of the receptor from the development;
- The duration, nature and type of the effect, whether temporary or permanent, adverse or beneficial;
- The angle of the view of the receptor;
- The extent of the area over which the changes would be visible;
- The scale of change in the view with respect to loss or introduction of features, changes in composition;
- The degree of contrast or integration of new features in terms of form, scale and mass, line, height, colour and texture;
- Seasonal effect (i.e. changes in views or visibility through the seasons due to deciduous vegetation or other factors such as weather conditions).

Example criteria for the magnitude (or scale) of visual change are given in Table 4 below. Again, it is important to qualify or substantiate the scale of effects with reference to the nature of effects (adverse, beneficial or neutral) and their duration (short term, long term, permanent).

Magnitude	Typical Criteria
Substantial	The development (or associated changes in landscape composition) forms a dominant large-scale feature (or change) and is immediately apparent within the view.
Moderate	The development (or associated changes in landscape composition) may form a visible and recognisable new or changed element within the general scene and may be readily noticed by the observer, but is not over dominant within the landscape.
Slight	The development (or associated changes in landscape composition) forms only a minor component of the wider view, which might be missed by the casual observer.
Negligible	The development integrates into the existing environment and as such scarcely affects the overall view.

None	No part of the development, or activity associated with development, is discernible.
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Table 4: Criteria for the magnitude of visual change

Impact Significance

The significance of landscape impacts is evaluated by taking into consideration the following factors:

- The sensitivity and value of the landscape or its ability to accept change caused by a particular type of development;
- The magnitude of that change on the landscape (the nature, scale and duration of the landscape effect brought about by a development).

Similarly, the significance of visual impacts can be evaluated by considering:

- The sensitivity of the visual receptor (dependant on the conditions under which the site is viewed, the interests of the viewer(s), the extent of available views and the number of viewers affected);
- The magnitude of visual effects (type and nature of visual effects, duration and distance of the receptor from the development).

Assessment of the significance of landscape and visual impacts is on a qualitative basis and does not avoid subjectivity. Therefore, the assessment of significance involves a degree of professional judgement in balancing the relationship between the sensitivity of the receptor and the magnitude of effects brought about by the development.

A matrix system can be employed to grade impact significance as shown in Table 5, but this should only be employed as a general guideline and does not eliminate the need to make a more explicit and qualified judgment in the light of a more complex series of variables.

		Sensitivity		
		High	Moderate	Low
Magnitude/Scale	Substantial	Major	Major	Moderate
	Moderate	Major	Moderate	Moderate
	Slight	Moderate	Moderate	Minor
	Negligible	Minor	Minor	Negligible

Table 5: Impact Significance Grading

Appendix E – References & Bibliography

Author / Publisher	Date	Title/Description
Landscape Institute and the Institute of Environmental Management and Assessment	2013	Guidelines for Landscape and Visual Impact Assessment, <i>3rd Edition 2013</i> . (GLVIA3)
Natural England	2018	An Approach to Landscape Character Assessment (Second Edition)
Staffordshire Moorlands District Council	2020	Staffordshire Moorlands Local Plan (2014 -2033), adopted in September 2020.
Natural England		‘Needwood and South Derbyshire Claylands’ National Character Area (NCA) - Profile Area 68, forming part of Natural England’s ‘ <i>National Character Areas</i> ’ publication.
Wardell Armstrong LLP on behalf of Staffordshire Moorlands District Council	2008	‘Landscape and Settlement Character Assessment of Staffordshire Moorlands’
Natural England		MAGIC (Multi Agency Geographic Information for the Countryside) - https://magic.defra.gov.uk/
Historic England		On-line Map Search - https://historicengland.org.uk/listing/the-list/map-search?clearresults=true
Ordnance Survey		Explorer Map 258 – Stoke-on-Trent & Newcastle-under-Lyme Explorer Map 259 – Derby



Planning

Landscape

Architecture

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