

Landscape and Visual Impact Assessment – Leaford Solar Farm

Prepared for:



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Section 1.0: Introduction

This report presents the findings of a Landscape and Visual Assessment ('LVIA' or 'assessment') undertaken as part of a planning application by Renewable Energy Systems Ltd ('the Applicant') for the construction and operation of a solar farm with all associated works, equipment, necessary infrastructure and biodiversity net gains ('the Development') on land east of the village of Fulford in Stafford Borough ('the Site' or 'Leaford Solar Farm').

The LVIA has been undertaken by a Chartered Landscape Architect in accordance with good practice guidance and is informed by The Town and Country Planning (Environmental Impact Assessment) Regulations 2017, published landscape character assessments and other guidance as referred to in relevant sections of the LVIA.

The figures illustrating the assessment are located in Appendix 3.

Section 2.0: Scope of the Assessment

This section sets out the aspects of the Development and embedded mitigation which have been assessed within the LVIA, the scope and broad methodology of the LVIA, and the assessment viewpoints.

The area in which built development is located is referred to as the 'Development Boundary' and the area in which built development and landscape mitigation is located is referred to as the 'Site Boundary'.

2.1 The Development

The Site boundaries are shown in Figure 1. The proposed development including built development and all landscape works (the Landscape and Ecology Management Plan or LEMP) would cover an area of 84 hectares (Ha), on land to the northeast of Fulford, between Stallington and Saverley Green, Staffordshire. Built development would occur over an area measuring 69.21 Ha (the Application Site Boundary) and would consist of a series of fields (numbered F1, etc) containing strings or rows of solar photovoltaic (PV) solar panels modules and associated structures, surrounded by deer fencing and include following key elements:

- PV solar panels - each panel approximately 1.3 metres (m) x 2.4m mounted on metal frames, likely to be screwed or driven into the ground to a depth of 1 - 2 m, depending on ground conditions. The highest point a maximum of 3.6m in height from the ground. For the purposes of this Application, a worst-case height of up to 3.6m has been assessed to account for any localised areas of slope. The rows or strings of panels would be orientated east to west, the faces of the panels tilting north to south. They would be spaced 2-6 m apart to prevent shading with the spacing dependant on topography. Solar panel areas would be fenced.
- Inverters and transformers in a GRP casing located around the Site with footprints measuring approximately 4.1 x 3m and 5 x 3 m respectively, both approximately 3m high.
- Battery Storage Enclosure either measuring 12116m x 2438m x 2.9m high (h) in grey or white or integrated within the Development.
- Substation compound (27m x 34m) including Distribution Network Operator (DNO) Substation typically 6m x 7.2m x 5.5m (h), Customer Control Room typically 8.4m x 3.5m x 4m (h), Office and Storage Building and DNO coms tower 15m (h) with 4m CCTV cameras. Floodlights would be used for infrequent maintenance and operational activities only. Lighting would be manually controlled rather than PIR, preventing unnecessary activation.
- CCTV cameras (infrared motion activated) located on 4m high poles within the security fence at intervals.
- Proposed access tracks approximately 4 m wide with 0.25m shoulders would be located within the Application Site boundary, with a connection to the public highway at Saverley Green Road on the southern boundary. The main Site access junction would be a made junction with the first 15m being bound (tarmac).
- Buried cables linking the solar panels to the inverters/ transformers and from these to the substation compound.
- Maximum height 2.4m post and wire deer fencing to the perimeter of the Site with 2.4 m high and 5 m wide security gates where access tracks cross through fencing. High tensile steel wire with hinge joints and mammal gates included.
- Security fencing would be constructed around the proposed Client/DNO Substation, BESS Compound and Inverter and Battery Storage Area. This fencing is anticipated to be palisade or weld mesh and measure 2.0-3.0m in height, comprising of a standard wire mesh fence on post foundation dependent on ground conditions. Subject to detailed design.

Embedded mitigation which has been developed through the iterative design process, described in Section 2.3 and Appendix 2 of this report.

The DNO coms tower would be the tallest element of measuring 15m and solar panels which make up the majority of the built elements would be 3.6m high. A full description of the Development, including dimensions of all infrastructure, is set out in the Planning Design and Access Statement and Planning Drawings which accompany the planning application.

The Development would also include a landscape planting and management plan which is set out in Figure 19 Landscape and Ecology Management Plan (LEMP) and Figure 20 Landscape and Ecology Management Plan (LEMP) Enlargement which illustrate the existing and proposed landscape of the

Development. In addition management, planting and species are set out in the Landscape Management Plan in Appendix 2.

The primary landscape elements of the Development would be as follows:

- Removal of 90m of hedgerow;
- Planting and management of new tree groups and hedge trees;
- Planting and management of new hedges;
- Maintenance including gap filling of existing hedges;
- Planting and management of grass (grazed by sheep or alternatively managed) within solar panel enclosures;
- Planting and management of in areas beyond built development.

In addition existing landscape features including woodland, streams, ponds and scrub located within the Site would be retained.

2.2 Construction

The construction period of the Development would typically last up to circa 12 months and the operational period would be up to 40 years.

The elements of the construction period which are relevant to this LVIA include the following:

- The use of construction vehicles and plant across the Site;
- The presence of people working on the Site;
- Two Temporary Construction Compounds (60m x 50m) with site office and welfare, storage buildings, chemical toilet, covered skip and car parking located in the south part of the Site in F19 near Saverley Green Road, and in the northern part of the Site in F4, and which would be removed and replaced by solar panels during the construction period;
- Temporary fencing at the construction compound and protecting existing trees and hedges;
- Excavations associated with the formation of the access track and the construction compound, laying cables and foundations for elements of the solar panel frames (the metal frames that support the solar panels would either be anchored to the ground with concrete footings or short piles), lighting, security cameras, information boards, etc.;
- Planting of hedges and trees and seeding grasses and wild flowers; and
- Erecting the perimeter deer fence.

Whilst the removal of vegetation would be minimised using existing gaps in hedges where possible, it would be necessary to remove approximately 45m total length of hedging to construct the bell mouth entrance on Saverley Green Road, and to trim or remove a further 45m of hedge to 1.05m maximum height, located to the east in order to maintain a view splay. In addition a series of short sections of hedge or scrub each measuring up to 6m would be removed from field boundaries to facilitate track access or the construction of fencing at two locations on the south side of F1, the south and east sides of F3, the south side of F4, the north and south side of F7, the south side of F9, the south side of F12, the south side of F14, and the west, south and east sides of F19.

There may be a need for temporary lighting during the construction phase, depending on the time of year and the length of the construction programme. This should only be required should construction occur when daylight hours are reduced, and in these instances would only be for short periods of time.

2.3 Embedded Mitigation Measures and Design

As the result of the early assessment of potential effects, a number of mitigation measures have been developed and incorporated into the design of the Development. A preliminary design layout assuming development across all of the area which was available to develop formed the basis of an early assessment. The final layout was achieved through consideration of landscape and visual constraints and opportunities, in combination with other design parameters.

The primary mitigation measures involved the selective siting of areas of solar panels, and the reinforcing of existing, or planting of new boundary screening vegetation. The following factors were key drivers in the design:

- The solar panels would be sloped towards the south so that least prominent sides (the sides and backs) would face the majority of visual receptors which are located within the Blithe Valley.
- Most existing trees and hedges would be retained and protected, providing good visual screening and enhancing landscape quality.

- All new planting would be located either on or close to existing field boundaries reinforcing landscape character.
- Native, predominantly deciduous species, that typically exist within the hedge boundaries of the Site already, would be planted and maintained as clipped or over-grown hedges on the application boundary, maintained at a height of 3.5m in order to provide maximum screening and enhance landscape character.
- In places the hedges would be supplemented with hedge trees, and there would be areas of native woodland to provide a visual screen whilst being typical of landscape character.
- All PRoW would require a stand-off from built development direct views it screened over time.

The Arboricultural Implications Assessment, Preliminary Ecological Appraisal and Biodiversity Net Gain (BNG) Report accompanying this planning application sets out these measures in more detail. Proposed landscaping is also illustrated in the Figure 19 Landscape and Ecology Management Plan (LEMP) and Figure 20 Landscape and Ecology Management Plan (LEMP) Enlargement accompanying the planning application. The BNG report sets out species lists and landscape management details for the Site.

The following general landscape measures would be undertaken:

- The surfaces of the solar panels would be kept to a height of 3.6m.
- Perimeter fencing would be wooden post and wire.
- Access tracks would cross field boundaries at a number of locations where there are existing gaps in hedges to avoid loss of hedges where possible.
- All gappy or missing hedges located on existing field boundaries within the Site would be planted with suitable native species to enhance landscape character, visual screening value and to increase biodiversity value.
- Areas of wild flower meadow would be formed in a number of locations to enhance landscape character and to increase biodiversity value.

The scheme layout has been developed to reduce landscape and visual impacts in the following specific ways:

- The openings in the hedge at the Site entrance that is required to create access and maintain the viewsplay would be kept to the minimum with additional screening hedges to limit views into the Site with sensitive use of signs, lightings, gates etc. Hedges located within the viewsplay would be trimmed to prevent ingress into the viewsplay.
- Built development has been omitted from the southern side of F13 and F15 and from the field located to the west of F18 in order to minimise visibility from Fulford and the surrounding area. Hedges have been proposed on the southern boundary of F13 and F15 to strengthen the boundary and screen any views to solar panels or vehicles etc. in the future.
- Built development has been omitted from the fields directly south of the residential property at Lower Gorsty Birch (R4-5) and Little Leacroft Farm (R6) and hedges and trees planted in F3 and F4 to reduce visibility to the solar panels and to the Substation, telecommunications mast and Ac and Dc compounds, reducing visual effects and preserving setting.
- Built development has been pulled back from the PRoW that crosses F17 and hedging and wild flower meadow introduced to reduce effects on visual amenity of users.
- Built development has been pulled back from Saverley Green Road and hedges and trees introduced to replace the hedging removed to construct the road access; and to reduce visual effects on road users and visual receptors located beyond the Site boundary to the south-east including the residential properties at R17-22.
- Trees would be planted on the northern boundary at F1 in order to screen views from the north including residential properties at Gorstybirch and the PRoW to the north.
- Trees would be planted on the west side of F18 in order to screen views to solar panels within F18 from views from the west including the nearby PRoW and residents located in the most elevated parts of Fulford.
- Hedging would be introduced and managed to reduce visual effects on users of the PRoW that crosses F14.
- Tree hedges would be planted and managed on the western boundary including F5, F7 and F10 to help screen views from the west including properties on the east side of Stallington, users of Stallington Road and users of the footpath between Stallington and Fulford.
- All hedges including the perimeter hedge of the entire Site would be maintained to a minimum of 3.5m to help screen views towards the Site generally.

Overall, there is a considerable amount of planting proposed across the Site and the measures proposed in the LEMP have contributed to a biodiversity net gain of +74.20% in Habitat Biodiversity Metric units and +22.04% Hedgerow Biodiversity Metric Units as reported in Section 3 of the Biodiversity Metric Assessment Technical Note.

Table 1: Visual appearance of elements of the Development

| LMP Element | Appearance/species | Year 1 | Year 15 |
|-----------------------------------|--|--|--|
| Existing Hedge maintained to 3.5m | Mostly Hawthorn, some holly, black thorn, elderberry and sycamore. | Various heights but assume 2m and trimmed. | 3.5m minimum height, dense, naturalistic as opposed to trimmed. |
| New hedge | Mostly Hawthorn, some holly, black thorn, elderberry and sycamore. | Small whips with tubes. | 3.5m minimum, naturalistic not too trimmed. |
| Tree screening at substation | Hawthorn, sycamore, sycamore, oak and beech. | Small whips with tubes. | Assume 8m with full heads. |
| Single trees usually in hedges | Sycamore, oak, beech. | Heavy standards 2.5m tall with stakes. | Assume 8m with full heads. |
| Proposed enhanced grassland | Pale green-brown tones, species rich. Pale beige in winter with a tussocky surface, mowed in summer. | No change. | No change. |
| Grassland around panels | Brighter green, length controlled with sheep. | No change. | No change. |
| Tracks | Local provenance gravel or black top | No change. | No change. |
| Bellmouth at public road entrance | Tarmac with deer fencing, kerbs and some grading with the existing levels. | Tarmac with kerbs, deer fencing, disturbed grass areas reinstated and hedge apparent as a series of whips with tree tubes. | Tarmac with kerbs and grass and mature hedges screening the fencing. |
| PV Solar Panels | Fixed 3.6m at tallest side, frames visible underneath and on back side, front side tends to reflect pale clouds or dark cloudless skies. | No change. | No change. |
| Other built elements | Fences green, deer fence post and wire, GRP elements pale grey, 15m telecommunications tower grey. | No change. | No change. |

2.4 Consultation

During the pre-application consultation process the Council was consulted regarding the scope and methodology of the LVIA through a Screening process and by email.

A Screening Decision (23/37774/ESS) was issued 24th November 2023 stating that an EIA was not required for the Proposed Development.

The Council was consulted specifically regarding the landscape and visual assessment by email on 11th September 2023 and 16th October 2023 regarding the assessment viewpoint selection for the Development. The Council requested that the report should meet the EIA Regulations and be LVIA. As a landscape specialist was not available to respond regarding the viewpoint selection and scope of the LVIA, and these elements were informed by early assessments of potential effects across the region.

2.5 LVIA Methodology & Relevant Guidelines

The full methodology for the LVIA is included in Appendix 1 and is based on current best practice guidance, namely:

- Landscape Institute/ Institute of Environmental Management and Assessment (2013), 'Guidelines for Landscape and Visual Impact Assessment', 3rd Edition ('GLVIA3')¹;
- Landscape Institute (2013), GLVIA3 Statement of Clarification 1/13²;
- Landscape Institute (2019), 'Visual Representation of Development Proposals', Technical Guidance Note³; and
- Natural England (2014), 'An Approach to Landscape Character Assessment'⁴.

The two 'landscape' and 'visual' components of LVIA referred to throughout the report are based on the following definitions:

- 'Assessment of landscape effects: assessing effects on the landscape as a resource in its own right'⁵; and
- 'Assessment of visual effects: assessing effects on specific views and on the general visual amenity experienced by people'⁶.

Development may have a direct (physical) effect on the landscape in which it is located as well as an indirect or perceived effect from landscape character areas surrounding it. The potential landscape effects occurring during the construction and operational stages of the Development may therefore include, but are not restricted to, the following:

- Changes to landscape elements: the addition of new elements or the removal of vegetation, buildings and other characteristic elements of the landscape character type;
- Changes to landscape qualities: degradation, erosion, or reinforcement of landscape elements and patterns, and perceptual characteristics, particularly those that form key characteristic elements of landscape character types;
- Changes to landscape character: landscape and character may be affected through the effect on characteristic elements (including perceptual characteristics), landscape patterns and attributes and the cumulative addition of new features, the magnitude and presence of which is sufficient to alter a notable part of the overall landscape character type of a particular area; and
- Cumulative landscape effects: where more than one development may lead to a potential landscape effect.

Visual effects are concerned wholly with the effect of development on visual receptors and general visual amenity. Visual effects are identified for different receptors (people) who would experience the view such as at their places of residence, during recreational activities, at work, or when travelling through the area. Visual effects may include the following:

- Visual effect: change in the appearance of the landscape as a result of development. This may include changes to the quality of the view, ability of the visual receptor to appreciate the view, or changes to the characteristic elements within the view; and
- Cumulative visual effects: the cumulative or incremental visibility of similar types of development may combine to have a cumulative visual effect.

Effects on users of linear routes may be simultaneous, successive or sequential.

Effects can be beneficial (i.e. positive or an improvement), neutral or adverse (i.e. negative or a detractor); direct or indirect, short-term, medium-term, or long-term; temporary or permanent; and adverse, beneficial, or neutral.

The potential effects have been assessed at construction, Year 1 and Year 15 in order to differentiate changes that have occurred due to maturing of landscape mitigation for example.

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

² The Landscape Institute (2015) GLVIA3 – Statements of Clarification. Available online at: <https://www.landscapeinstitute.org/technical-resource/glvia3-clarifications/>

³ The Landscape Institute, *Visual Representation of Development Proposals, Technical Guidance Note 06/19*, 17th September 2019.

⁴ Natural England (2014), *An Approach to Landscape Character Assessment*. Available online at: <https://www.gov.uk/government/publications/landscape-character-assessments-identify-and-describe-landscape-types> (Accessed on 14/08/2020).

⁵ Ibid. page 21.

⁶ Ibid. page 21.

2.6 Limitations of the Assessment / Assumptions and Limitations

Glint and Glare impacts have been discussed within the Glint and Glare Report which accompanies the application and a separate standalone assessment report. As such glint and glare have not been addressed within the LVIA.

The assessment of residential properties, or groups of properties, is limited to those within approximately 1km of the Development. A number of these properties are accessed from private farm tracks/ roads and, due to the limitations of access, they have been assessed from the nearest public road or footpath with the aid of aerial photographs. No properties have been accessed and as such the assessment should be regarded as an informed estimate of the likely visual effects.

2.7 Study Areas

Different study areas have been used in order to focus on potentially significant effects according to guidance¹ as follows:

- A 1km radius area from the planning application boundary for the Site has been used to assess visual effects on dwellings, minor roads and Public Right of Way (PRoW) users.
- A 3.5km radius area has been used to assess effects on landscape character and designations, settlements, recreational and route users.
- A 5km radius area has been used to search of other solar developments which could contribute to cumulative effects.

Beyond these areas it was concluded that the Development would be highly unlikely to have any meaningful influence on landscape resource or visual amenity due to the low-lying and visual nature of the Development and patterns of visibility.

The extent of the study areas is shown in Figures 1-8.

2.8 Desk-Based Study

Information for the LVIA was gathered from the following key sources:

- Natural England, National Character Areas⁷;
- Natural Capital Best Practice Guidance: Increasing biodiversity at all stages of a solar farm's lifecycle⁸;
- Stafford Borough and Staffordshire County Council development plan documents;
- Ordnance Survey mapping at 1:50,000 and 1:25,000 scale;
- Georeferenced Aerial photography;
- Contour mapping;
- Aerial Photography;
- Web GIS data bases;
- Lidar data; and
- Google Earth, Street View and Maps.

2.9 Field Study

Following the desk-based assessment, fieldwork was undertaken in April, August and November 2023. Key activities undertaken during the fieldwork stage at publicly accessible locations were:

- To augment and verify published descriptions of landscape character with fieldwork observations;
- To undertake an assessment of the quality or condition of the baseline landscape and visual resource;
- To identify any significant features and elements in the landscape such as vegetation or built form that would screen the Development and thereby verify or refine the ZTV;
- To visit each viewpoint location identified during the desk study and screening report, and to microsite each viewpoint location in accordance with good practice guidance and to obtain accurate coordinates;
- To undertake viewpoint photography at each viewpoint location; and
- To identify landscape features and elements that may be altered or removed as a result of the Development.

The fieldwork stage also included a provisional assessment of effects on the following receptors:

⁷<https://www.gov.uk/government/publications/national-character-area-profiles-data-for-local-decision-making/national-character-area-profiles>.

⁸ Solar Energy UK (2022) Natural Capital Best Practice Guidance: Increasing biodiversity at all stages of a solar farm's lifecycle

- Landscape resource including landscape character, landscape designations, landscape sensitivity, landscape features and landscape elements;
- Residential and recreational receptors;
- Roads and railways; and
- Public footpaths, bridleways and byways.

2.10 Zone of Theoretical Visibility (ZTV)

To assist with defining the area within which the Development would be likely to be seen, and to help identify potential visual receptors and viewpoint locations, Zone of Theoretical Visibility (ZTV) diagrams have been prepared.

ZTVs are computer-generated from a digital terrain model (DTM) of the study area (using OS Terrain 5 at 5m grid resolution), with a 3D model of the Development inserted (taken as 3.6m above existing ground levels). They illustrate the theoretical visibility of the Development throughout the study area based on an eye height of an adult person (taken as 2m) whilst taking account of the effects caused by atmospheric refraction and the Earth’s curvature.

In this instance two types of ZTV have been prepared: ‘bare-earth’ and ‘screened’ (refer to Figures 4 and 5). The Bare Ground ZTV (Figure 4) illustrates theoretical visibility of the Development without the screening afforded by buildings and vegetation and, as such, it represents a ‘worst-case scenario’. The Screening Effects ZTV (Figure 5) takes account of screening by buildings and woodland (identified from OS Vector Map District Data) across the study area. It should be noted that for 3D modelling purposes, and to provide a level of consistency, forest and woodland blocks have been modelled at a nominal 10m height, with buildings modelled at 8m to broadly represent the height of a two-storey house. It does not take into account hedgerows, individual trees and other scattered vegetation which are characteristic features of the study area.

Due to practical limitations in what the software and data can take into account (i.e smaller scale terrain features, DTM resolution size, etc.) the Screened and Bare Ground ZTV presents a visibility pattern that is likely to be greater than in reality. The ZTVs are used as a tool in combination with field work, map, aerial photograph and visualisation analysis.

Detail on the production of the ZTVs presented in Appendix 4.

2.11 Viewpoints

The nine viewpoints, discussed in consultation, have been selected to illustrate likely views of the Development from nearby residential properties, settlements, the local road network, PRoWs (footpaths, bridleways and byways) and other publicly accessible locations. Some of the viewpoints also illustrate the local landscape and landscape character.

The viewpoints were selected initially by reference to the ZTVs and were then refined in the field to take account of screening by vegetation, buildings and local landform. Following methodology established in GLVIA3, the viewpoints were chosen based on the following criteria:

- Viewpoints should be representative of the likely impacts;
- Viewpoints should show a range of different types of views;
- Viewpoints should be representative of a range of different receptor groups;
- Viewpoints should be representative of a range of distances and directions; and
- Viewpoints should be representative of the varying views of the Development within the landscape.

A summary of the final viewpoints included in the LVIA is provided in Table 2. The location of the viewpoints is shown in the ZTVs in Figures 4 and 5. All viewpoints are restricted to publicly accessible locations.

Baseline photographic panoramas located at each viewpoint in the direction of the Site are illustrated in Visualisations 1-9. These were taken during the summer months when deciduous vegetation was not in leaf and any changes in screening of views during winter has been accounted for in the assessment of effects.

Table 2: Proposed Assessment Viewpoints

| Viewpoint Location | Grid Reference | Distance - LEMP boundary | Reasons for Inclusion |
|--------------------|----------------|--------------------------|-----------------------|
|--------------------|----------------|--------------------------|-----------------------|

| | | - Nearest solar panel | |
|-------------------------------------|--------------------|-----------------------|--|
| 1 Footpath between Site and Fulford | E395499 N338576 | 0m 65m | Recreational PRow. Views close to the west side of the Site. Cumulative views. |
| 2 Saverley Green Road | E396169 N338290 | 5m 149m | Road near settlement edges of Fulford and Saverley Green. Views from the southern boundary and into the main entrance. |
| 3 Lower Gorsty Birch | E395560 N339879 | 0m 164m | Residential and minor road views on the northern site boundary |
| 4 Footpath to north of the Site | E395926 N340254 | 270m 331m | PRow close to site to the north view to the Site within context of local landscape |
| 5 Fulford Lane, Stallington | E394841 N339636 | 537m 557m | Residential and minor road. Views from the west. |
| 6 Long Lane near Fulford | E395729 N337548 | 755m 780m | Recreational Stone Circles Challenge and minor road near Fulford with views to the Site within the wider landscape. |
| 7 North end of Cresswell | E397684 N339484 | 1.47km 1.49km | Residential, recreational and road on north side of settlement edge of Cresswell. |
| 8 Totmonslow | E399243 N339762 | 3km 3km | Residential, recreational and minor road, distance views from the east. |
| 9 Draycott Cross | E398834 N341566 | 3.2km 3.2km | Minor road, distant, elevated views from the north-east. |

The viewpoint photography has been undertaken to Landscape Institute Guidance and details are set out in Appendix 1. The nine viewpoints are presented as 90 or 180 degree panoramic photographs and accompanied by either photomontages or wirelines. The photomontages represent the view at the year of completion (Year 1) and at Year 15 when the hedges are fully grown and the new trees have begun to mature.

Detail on the production of the viewpoint visuals is presented in Appendix 4.

2.12 Cumulative Assessment

Cumulative effects are additional effects on key characteristics of landscape character and / or on views and visual amenity that arise when the Development is seen or experienced in conjunction with one or more other large developments, including other solar array developments, from a particular location.

As part of the baseline, a search was undertaken of other large developments, including ground-mounted solar photovoltaic array developments, which are operational, approved or subject of a valid planning application within 3.5km of the Site. Effects are assessed in sections 6 and 7. In addition, other large scale developments are considered as part of the future baseline in section 8.

Section 3.0: Policy and Designations

This section summarises current legislation, planning policy and guidance of national and local importance that is pertinent to landscape and visual matters, and which is likely to have a bearing on the Site with implications for the Development.

3.1 National Planning Policy Framework (NPPF)⁹

The National Planning Policy Framework (NPPF) sets out the Government's strategic vision for the planning system in England and how it is expected to be applied at a local level in development plans and planning decisions. The NPPF places great emphasis on plans and developments that contribute to sustainable development.

Policies and paragraphs which cover landscape and visual matters and which are potentially relevant to the Site and the Development include:

- Paragraphs 152 to 156 regarding development within Green Belt;
- Paragraphs 158 to 164 which deal with climate change, with paragraph 163 requiring local planning authorities, when determining applications for renewable and low carbon schemes, to grant consent if the impacts are (or can be made) acceptable; and
- Paragraph 180, which deals with the natural environment and notes that policies and decisions should protect and enhance valued landscapes as well as recognise the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services

3.2 Overarching National Policy Statement for Energy (EN-1)¹⁰

Overarching National Policy Statement for Energy (EN-1)¹¹ sets out the criteria for Regional and Local Planning Policy regarding landscape and visual considerations which are set out in Section 5.10 and give guidance on design, mitigation and assessment. Section 4.7 discusses visual appearance and good fit of the Development.

3.3 National Policy Statement for Renewable Energy Infrastructure (EN-3)¹²

National Policy Statement for Renewable Energy Infrastructure (EN-3)¹² sets out guidance on assessment of the landscape and visual effects of the proposed infrastructure. It encourages good design that is sympathetic and contributes positively to the landscape character and quality of the area. It also discusses mitigation, minimising effects on PRoW, effects of security lighting, landscape, visual and residential amenity impacts.

3.4 Local Policy

The determining authority for the planning application is Stafford Borough Council.

At a local level, the adopted Local Development Framework for Stafford Borough currently comprises a number of documents of which the most pertinent to this LVIA are:

- Stafford Local Plan 2011-2031¹³;
- Local Plan Proposals Map (which identifies areas where policies and proposals apply); and
- A number of supplementary guidance documents.

3.4.1 Stafford Borough Local Plan 2011-2031

The Stafford Local Plan comprises The Plan for Stafford Borough Part 1 (adopted 19 June 2014)¹³. The Plan for Stafford Borough manages where new development (such as housing, shops and green spaces) can take place over the next 20 years.

⁹ Ministry of Housing, Communities and Local Government (December 2023), National Planning Policy Framework. Available online at <https://www.gov.uk/government/publications/national-planning-policy-framework--2>.

¹⁰ Department for Energy Security & Net Zero Overarching National Policy Statement for Energy (EN-1) Presented to the Houses of Parliament pursuant to section 9(8) of the Planning Act 2008.

¹¹ Department for Energy Security & Net Zero Overarching National Policy Statement for Energy (EN-1) Presented to the Houses of Parliament pursuant to section 9(8) of the Planning Act 2008.

¹² National Policy Statement for Renewable Energy Infrastructure (EN-3) Department for Energy Security & Net Zero Presented to the Houses of Parliament pursuant to section 9(8) of the Planning Act 2008.

¹³ The Plan for Stafford Borough (adopted 19 June 2014).

The emerging Stafford Borough Local Plan 2020-2040 Preferred Options¹⁴ has not been adopted yet and The Plan for Stafford Borough (Part 1)¹³ contains the following policies which are relevant to the Development.

SPATIAL PRINCIPLE 7 (SP7) - SUPPORTING THE LOCATION OF NEW DEVELOPMENT

Development in other locations (in settlements or in the countryside) will only be supported where:

i) If located within the Green Belt, it is consistent with national policies for the control of development, and Policy E5;

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ii) It is consistent with the objectives of Spatial Principles SP6, Policies E2 and C5 in supporting rural sustainability;

iii) It does not conflict with the environmental protection and nature conservation policies of the Plan;

iv) Provision is made for any necessary mitigating or compensatory measures to address any harmful implications.

Policy E5 Major Developed Sites in the Green Belt

The following sites will be identified as previously developed sites (whether redundant or in continuing use, excluding temporary buildings) within the Green Belt, where limited infilling or the partial or complete redevelopment will be supported for employment purposes consistent with Spatial Principle SP7, which would not have a greater impact on the openness of the Green Belt and the purpose of including land within it than the existing development;

- Hadleigh Park (Former Creda Works Limited), Blythe Bridge.
- Moorfields Industrial Estate, Swynnerton.
- Former Meaford Power Station, Meaford, Stone.

Policy N1 Design

To secure enhancements in design quality, development must, at a minimum, meet the following principles:

Use

- a. Ensure that, where relevant the scale, nature and surroundings, major applications are comprehensively master planned or, where appropriate, are accompanied by a development brief;
- b. Be designed, sited and grouped in order to provide access for all;
- c. New development of ten dwellings or more should demonstrate compliance with the Building for Life 12 assessment and any successor documents, unless it makes the development unviable or it has been sufficiently demonstrated, through a Design & Access Statement, that each of the twelve Building for Life questions has been optimally addressed, or conversely why it is not practical or appropriate to do so;

Form

- d. Incorporate sustainable construction and energy conservation techniques into the design in accordance with Policy N2;
- e. Require the design and layout to take account of noise and light implications, together with the amenity of adjacent residential areas or operations of existing activities;
- f. Retention of significant biodiversity, landscaping features, and creation of new biodiversity areas that take into account relevant local information and evidence;
- g. Include high design standards that make efficient use of land, promote activity and takes into account the local character, context, density and landscape, as well as complementing the biodiversity of the surrounding area;
- h. Designs must have regard to the local context, including heritage assets, historic views and sight lines, and should preserve and enhance the character of the area including the use of locally distinctive materials;

Movement

- o. Ensure that places inter-connect using important routes and linkages, including Rights of Way, which are pedestrian, vehicle and cycle friendly, whilst allowing for ease of movement, legibility and permeability through a clearly defined and well structured public realm;
- p. Ensure car parking is well integrated and discreetly located.

Policy N3 Low Carbon Sources & Renewable Energy

¹⁴ Stafford Borough Council (September 2022) Stafford Borough Local Plan 2020-2040 Preferred Options.

Development of schemes for the generation of renewable energy resources and initiatives for a low carbon economy, will be supported provided that:

- a. The technology is suitable for the proposed location, does not cause harm to residential amenity, the significance of heritage assets and their setting and has limited adverse effects on the surrounding landscape and townscape character;
- b. Levels of noise, overshadow, flicker (associated with some wind turbines), or other harmful emissions are minimised and there is no adverse effect on public safety;
- c. The technology does not affect the integrity of the water environment, or locally, nationally and internationally designated sites;

Policy N4 The Natural Environment & Green Infrastructure

The Borough's natural environment will be protected, enhanced and improved by:

- a. Implementation of the Staffordshire Biodiversity Action Plan, the Stafford Borough Green Infrastructure Strategy and guidance including 'Biodiversity by Design' or any other successor documents to increase and enhance biodiversity, in terms of habitats and species as well as geological conservation or geodiversity through appropriate management for a network of:
- b. Conservation and enhancement of water courses and their settings for their landscape character, biodiversity and recreational value, particularly for the Borough's extensive rivers and extensive canal system;
- c. Protecting, conserving and enhancing the natural and historic environment and irreplaceable semi-natural habitats, such as ancient woodlands, and ancient or veteran trees;
- d. Increasing the ability of landscapes and ecosystems to adapt to different weather patterns and climate change, by increasing the range and extent of habitats, informed by Biodiversity Opportunity mapping;
- ...f. Any new development where damage to the natural environment is unavoidable must include measures to mitigate and / or compensate such impacts, through the establishment of replacement habitats or features, including appropriate site management regimes.

The Borough's green infrastructure network, as defined on the Policies Map, will be protected, enhanced and expanded:

- g. Networks of open spaces for formal and informal recreation, natural corridors, access routes and watercourses will be enhanced and created, where those networks:
 - i. protect the setting of landscape, heritage and natural (biodiversity and geodiversity) assets;
 - ii. reverse habitat fragmentation due to having suffered past loss and degradation;
 - iii. provide recreational opportunities for new and existing communities;
 - iv. provide open breaks between neighbouring residential areas and business developments.
- h. The network of existing access routes will be improved and expanded to allow sustainable commuting, including:
 - i. shared surfaces to reduce vehicle speeds;
 - ii. providing safe, attractive and well-signed walking and cycling routes between residential areas, employment centres, green spaces and the wider countryside.
- i. Local landscape and heritage features should:
 - (i) Be conserved and enhanced and inform the master planning and design of new neighbourhoods;
 - (ii) be positively managed to conserve and enhance their significance and contribution to the character of the landscape;
 - (iii) be accessible to local communities, as appropriate, for leisure and recreation.
- j. Development will support implementation of the Severn and Humber River Basin Management Plans and not pose a barrier to the meeting of their objectives for any watercourse. To alleviate the effects of climate change and meet the objectives of the Water Framework Directive, new development should:
 - i. Include measures such as Sustainable Drainage Systems and street trees;
 - ii. Provide a variety of Green spaces and habitat networks as a flood storage / management function (where appropriate);....
- k. All new developments will:
 - i. Be set within a well designed and maintained attractive green setting, demonstrated through a detailed management plan where appropriate;
 - ii. Provide a variety of spaces to meet the needs of people and nature;

Policy N8 Landscape Character

Development proposals must be informed by, and be sympathetic to, landscape character and quality, demonstrated through local site specific assessments in the context of the Staffordshire Landscape

Character Assessment together with Historic Landscape Characterisation Assessment and the Historic Environment Character Assessment.

Development should demonstrate that proposals with landscape and visual implications, should protect, conserve and, where appropriate, enhance:

- a. The elements of the landscape that contribute to the local distinctiveness of the area (including heritage assets, cultural character and biodiversity);
- b. Historic elements of the present day landscape that contribute significantly to landscape character;
- c. The setting and views of or from heritage assets, including conservation areas, Registered Parks and Gardens, Scheduled Monuments, Listed Buildings and assets identified in the Historic Environment Record;
- d. The locally distinctive pattern of landscape elements such as woodland, streams, hedgerows, trees and field boundaries.

New development should reinforce and respect the character of the settlement and the landscape setting, through the design and layout that includes use of sustainable building materials and techniques that are sympathetic to the landscape. Further details are included in Policy N1.

3.4.1 Supplementary Planning Guidance

The Council has produced a number of supplementary planning guidance documents. Those covering landscape and visual matters that are relevant to this LVIA are listed below:

- Planning for Landscape Change: Supplementary Planning Guidance to the Staffordshire and Stoke on Trent Structure Plan 1996 – 2011 Appendix 1: Maps and Plans¹⁵;
- Planning for Landscape Change: Supplementary Planning Guidance to the Staffordshire and Stoke on Trent Structure Plan 1996 – 2011 Supporting Documentation¹⁶; and
- Planning for Landscape Change: Supplementary Planning Guidance to the Staffordshire and Stoke on Trent Structure Plan 1996 – 2011 Landscape Descriptions¹⁷.

These documents were adopted as Supplementary Planning Guidance to the Staffordshire and Stoke on Trent Structure Plan 1996-2011. Although this Plan has now been revoked, the Staffordshire and Stoke on Trent Joint Waste Local Plan (2010-2026) (Adopted March 2013) requires that regard is given to Planning for Landscape Change documents or their successor document which will remain a material consideration.

3.5 Landscape Planning Designations and Protected Features

As part of the baseline, any value attached to the landscape within the study area is taken into account. This usually takes the form of landscape-related designations valued for their wild qualities or scenic beauty at a national, regional or local level such as National Parks, AONBs and Special Landscape Areas.

The baseline also takes account of any protected features, the presence of which may indicate value at a national, regional or more local level. Protected features mostly relate to cultural heritage or nature conservation assets such as World Heritage Sites, Ancient Monuments, Conservation Areas, Listed Buildings, Historic Parks and Gardens, Sites of Special Scientific Interest, Nature Reserves, Ancient Woodland, etc.

Landscape-related designations and protected features identified within the Site and wider study area from a search of the Council website and MAGIC website¹⁸, are listed in Table 3 below and shown Figure 7.

Table 3: Landscape & Planning Designations and Protected Features

| Landscape Designations & Protected Features | Present Within Site | Present within Study area (3.5km radius) |
|--|---------------------|--|
| National Parks | None | None |
| Areas of Outstanding Natural Beauty (AONBs) | None | None |

¹⁵ Planning for Landscape Change: Supplementary Planning Guidance to the Staffordshire and Stoke on Trent Structure Plan 1996 – 2011 Appendix 1: Maps and Plans.

¹⁶ Planning for Landscape Change: Supplementary Planning Guidance to the Staffordshire and Stoke on Trent Structure Plan 1996 – 2011 Supporting Documentation.

¹⁷ Planning for Landscape Change: Supplementary Planning Guidance to the Staffordshire and Stoke on Trent Structure Plan 1996 – 2011 Landscape Descriptions.

¹⁸ MAGIC website. Available online at: <https://magic.defra.gov.uk/> (Accessed on 03/02/2021).

| | | |
|--|-----------------------------------|-----------------------------------|
| Special Landscape Areas (or equivalent) | None | None |
| Green Belt | Yes (refer Section 4 for details) | Yes (refer to Section 4) |
| Country Parks | None | None |
| World Heritage Sites | None | None |
| Scheduled Ancient Monuments | None | Yes (refer Section 4 for details) |
| Conservation Areas | None | Yes (refer Section 4 for details) |
| Listed Buildings | None | Yes (refer Section 4 for details) |
| Registered Historic Parks and Gardens | None | None |
| Registered Battlefields | None | None |
| National Trails/ Cycle Routes and Long-Distance Footpaths | None | Yes (refer Section 4 for details) |
| Public Rights of Way (PRoW) | Yes (refer Section 4 for details) | Yes (refer Section 4 for details) |
| Ancient Woodland | None | Yes (refer Section 4 for details) |

The designations present in the Site or study area are recorded in the baseline description.

Section 4.0: Baseline Conditions

This section describes the baseline landscape character, designations and visual amenity of receptors against which the Development has been assessed. This has been identified through desktop studies supplemented by field observations of the Site and wider study area.

4.1 Site and Context

The Ordnance Survey mapping and aerial photography of the Site and the wider study area are illustrated in Figures 1-3, 7 and 8.

The Site extends to an area of approximately 84Ha, is broadly crescent shaped and measures approximately 1.75km at its longest point north to south. The Site boundaries are formed largely by existing field boundaries and by a short section of Saverley Green Road on the south side.

The Site comprises a series of mostly medium-sized geometric fields currently mostly under grazed agricultural use, and typically bounded by full or gappy, dense native species hedges (particularly in the northern portion) and/or hedge trees (particularly in the central and southern portions). There are a number of small woods or groups of trees located centrally, and often in association with a series of small ponds.

The Site sits on north-east facing slopes (145 m Above Ordnance Datum or AOD) to the west of the River Blithe which flows south-east. The valley side rises to a trig point at Moddershall which is 125m AOD, and on the other side of the valley, 250m AOD at Callow Hill Farm. The topography of the Site and the wider study area is illustrated in Figure 3 Topography. Small watercourses flow through the northern and central parts of the Site.

Blocks of deciduous woodland are typical of the upper slopes to the west of the Site, the landscape becoming more open to the east of the Site. Ancient woodland is illustrated in Figure 7. Mature trees located on the embankments lining the A50 and close to the B5029 together form a wooded barrier between Blythe and the countryside to the south.

The 3.5km study area can be split into two settlement patterns: predominantly rural and including the Site with villages and hamlets including Saverley Green, Fulford, Stillington, Gorstybirch and Cresswell relatively close to the Site, as well as a series of scattered dwellings and farms; and heavily developed in the north including the settlement of Blythe Bridge and Stoke-on-Trent. Residential properties located within 1km are marked on Figure 8.

Overall, the Site and its immediate context is perceived as rural. The traffic of the A50 is largely screened from the surrounding landscape, but a series of high voltage electricity lines cross the study area and there are large scale industrial elements at Cresswell and Blythe Bridge. A single wind turbine located at Draycott Cross is prominent in views to the north-eastern part of the study area.

A network of small roads links the larger roads radiating from Stoke-on-Trent including the A50, A5029, A506 and A520. The East Midlands Railway Crewe to Derby Line broadly follows the Blithe Valley and stops at Blythe Bridge station.

A network of PRow crosses the study area with routes crossing the Site itself, with some long-distance routes including the Stone Circles Challenge passing close to the Site at Fulford.

4.2 Landscape Character

An assessment of the baseline landscape character has been considered at two levels:

- A national/regional setting defined within the Natural England National Character Area profiles⁷; and
- A regional/local setting, based on the Staffordshire Landscape Descriptions and guidance¹⁷.

At a national level the Site is located within National Character Area (NCA) 68 Needwood & South Derbyshire Claylands. Given the scale of the NCA, its characteristics are likely to be represented over a wide area of the NCA. As such, any changes at the Site level relative to the NCA would be extremely small in scale and are unlikely to impact upon those key landscape characteristics identified for the NCA. As such, the NCA is not considered further in the LVIA.

At a regional scale the study area is divided into Landscape Character Types (LCTs), as defined by the landscape descriptions in the Staffordshire Supplementary Planning Guidance¹⁷ and these are illustrated in Figure 6.

The Site is located in Settled Plateau Farmland Slopes LCT and, in addition, the study area contains well represented areas of Settled Plateau Farmlands LCT, Sandstone Hills and Heaths LCT and Dissected Sandstone Cloughs and Valleys LCT. There are also very small areas of LCT Ancient Slope and Valley Farmlands on the north-east margin of the 3.5km study area, and LCT Coalfield Farmlands on the west side. The Screening Effects ZTV located in Figure 5 and observation in the field indicate that there is unlikely to be visibility to the Development from these LCTs and they have been discounted from the LVIA.

The following description identifies the key characteristics and key attributes and guidance for landscape character within the 3.5km study area, based on the character assessment. Landscape character is assessed in terms of landscape and visual effects on the receiving LCT, and the visual effects on the surrounding LCTs.

4.2.1 Settled Plateau Farmland Slopes LCT

The Site is located within Settled Plateau Farmland Slopes LCT which extends to the south, the north and the east. The Bare Ground ZTV in Figure 4 indicates that there could be extensive visibility to the Site from within most parts of the LCT represented within the study area.

Key landscape characteristics represented within the study area are:

- Hedgerow oak and ash trees;
- Broadleaved and conifer woodlands;
- Irregular hedged field pattern;
- Narrow lanes and hedge-banks;
- Old villages and hamlets;
- Small streams and small ponds located in fields, often with trees and scrub.
- Manors and parkland; and
- Undulating, sloping landform.

Key visual characteristics represented within the study area are:

- This is a landscape of irregular, hedged fields and numerous hedgerow trees on a sloping landform, often dissected by small steep sided wooded stream valleys draining the plateau tops;
- Where the land-cover pattern remains intact, the hedgerows and hedgerow trees to a large extent control and limit views across the landscape, with the rolling landform and steeper slopes often allowing longer views and showing up the pattern of fields and small woodlands;
- Hedgerow tree cover is predominantly oak, with some ash, whilst stream-side willow and alder have a strong localised influence along the valleys.
- Large areas of ancient woodland dominate the upper scarp slopes, lending a very individual character to those areas;
- The predominantly low intensity pastoral farming, together with a network of narrow, often sunken lanes and clustered farmsteads, hamlets and villages of traditional Staffordshire red brick lend the landscape a peaceful, rural feel;
- Where agricultural intensification is taking place, a more open landscape of medium to large scale fields is reducing the diversity as field boundaries are declining to wire fence lines, gappy hedges and grown up thorn;
- Locally, small woodlands, mostly broadleaved in nature but sometimes with some conifer element, have a localised influence; and
- The rolling nature of the landform, varying from gentle to more pronounced undulations, together with lack of land cover, shows up the variations in the landscape scale, the different field patterns and water features such as ponds and small streams.

Negative attributes include:

- Extensive fencing;
- Busy roads;
- Electricity pylons;
- Agricultural intensification;
- Large modern farm buildings;
- Modernised dwellings and commuter properties; and
- Village expansion.

Landscape character and value:

“The critical factors which currently limit landscape quality are the loss of characteristic landscape features, the poor condition of those features that remain, and the relatively poor survival of characteristic semi-natural vegetation (e.g. ancient woodland and semi-natural grasslands).”

This landscape character type is locally sensitive to the impacts of development and land use change.”

Sensitivity to the Development

In terms of value, the landscape of Settled Plateau Farmland Slopes LCT is largely undesignated other than Conservation Areas at Caverswall, Fulford and Hilderstone; a series of largely Grade II Listed Buildings and a Scheduled Monument which are mostly associated with those villages. Much of the LCT is also located in the Green Belt and the LCT also contains some ancient woodland in the eastern part. These designations reflect the historic character of the villages and landscape within the LCT. The Site itself is not designated.

The quality of the landscape is variable with a pattern of mostly medium-scale fields with many sections of hedge remaining in-tact and well maintained. The LCT contains limited numbers of hedgerow trees and larger fields in the base of the Blithe Valley, which includes northern parts of the Site. The LCT is also typified by ponds which are often associated with areas of scrub and trees as occurs within central and northern parts of the Site. It is considered that the value of the landscape within the study area and Site is Medium.

The LCT is moderately open to long views to the south although trees and hedges provide some screening. The busy A50 road and large built areas associated with Blythe have an urbanising influence on the LCT within central parts of the study area. The LCT is considered to have Medium susceptibility.

Guidance states that *‘This landscape character type is locally sensitive to the impacts of development and land use change.’*

By combining judgments on value and susceptibility, an overall level of sensitivity is derived. In this instance, the landscape and visual sensitivity Settled Plateau Farmland Slopes LCT to the Development is judged to be Medium.

Management Guidance

Staffordshire has a series of Landscape Policy Zones and the Site is located within an area of ‘Active landscape conservation’ (Map 1¹⁷). The following table sets out management guidance¹⁶ for the LCT.

Table 4: Landscape Management and Guidelines for Settled Plateau Farmland Slopes LCT

Potential value of new woodland planting

Somewhat variable, from moderate to very high value, to restore some landscape structure to those areas now increasing in scale due to agricultural intensification, and to reinforce the parkland character of discrete areas.

Potential value of other habitat provision and management

Staffordshire Biodiversity Action Plan Targets that are relevant at landscape scale are set out below.

Habitat type: Ancient/ semi-natural broadleaved woodland. Object or target: maintain and enhance (high priority), restore degraded sites (medium priority) and recreate/regenerate (medium priority).

Habitat type: Ancient/diverse hedgerows. Object or target: maintain and manage (high priority) and maintain trees (high priority).

Habitat type: Hedgerows. Object or target: plant species-rich hedges (high priority).

Habitat type: Canals, lakes and ponds. Object or target: maintain and enhance water bodies and catchments (high priority) and increase the number of such features (high priority).

Habitat: Rivers and Streams. Object or target: maintain and improve the quality and quantity of water (very high priority). Maintain the quality of all natural existing channel features (very high priority).

Tree and woodland planting

The character of the sloping landform and increasing openness of some areas suggests a variety of appropriate scales of planting. In the more intact areas and along the valley bottoms no more than small scale planting of field corners or field size could be accommodated. This could then increase to medium to large scale further up the slopes and in the open landscapes, provided that views though are retained and there is interlock maintained between the planted and unplanted areas. The flow of fields around the interlocking woodlands is visually important. In most cases the design of plantations should build on or relate to existing hedgerows or woodlands. It should reflect the predominantly broadleaved character of the landscape, and any conifers that are used should not be allowed to dominate. In the more open areas and on steeper landform some design to slopes will become important, as will the internal design. This planting could usefully emphasise the varied landform, reinforce the parkland character where this is present, and reinforce the stream valleys by the use of wetland species.

It is becoming increasingly important to reintroduce or strengthen the land-cover pattern by hedgerow replanting and tree conservation tagging schemes etc. In areas with existing ancient woodland, special care is needed over species choice of new woodlands.

4.2.2 Settled Plateau Farmlands LCT

The south-eastern of the study area is located within Settled Plateau Farmlands LCT. The Bare Ground ZTV in Figure 4 indicates that there could be some visibility to the Site from the LCT.

Key landscape characteristics are:

- Ancient heathy oak woodland and new plantations;
- Pronounced rolling ridge and valley landform;
- Large farms;
- Intensive mixed pastoral and arable farming;
- Large scale fields; and
- Parkland.

Key visual characteristics represented within the study area are:

- This is an open landscape of large-scale regular and irregular fields with extensive views from the raised, undulating plateau landform out to the surrounding countryside, except where conifer and broadleaved plantations restrict views and act as constant skyline features;
- Few hedgerows and a generally low density of hedgerow trees emphasise this open nature, although locally, remnant heathy woodland of ancient origin, containing oak, holly and silver birch, or woodland estate planting, help to reduce the scale and contain views;
- There are belts of mature broadleaved trees which intersect the open areas, and new tree planting has been carried out along tracks, although the use of exotic species has sometimes been inappropriate;
- Intensive arable and improved pasture farming has reduced the level of diversity, with breakdown of field boundaries to wire fences, stunted individual oaks and individual thorn; and
- There is little access into these areas except tracks to large isolated estate farms with large modern agricultural buildings.

Negative attributes include:

- Large numbers of fence-lines replacing hedgerows;
- Gappy hedgerows;
- Large farm buildings;
- Stunted hedgerow oaks; and
- Exotic tree species.

Landscape character and value:

'The critical factors which currently limit landscape quality are the loss of characteristic landscape features, the poor condition of those features that remain, and the introduction of incongruous features, as listed above. The representation of semi-natural vegetation characteristic of this landscape type (e.g. ancient woodland, wood pasture and unimproved grassland) is also relatively poor.'

Sensitivity to the Development

In terms of value, the landscape is largely undesignated other than the two Scheduled Monuments located at Paynsley Hall and the moat near Dairy House Farm. Mature tree groups and smaller field sizes create enclosure and there are larger areas of woodland and parkland trees located associated with Hosewood Park and Gardens and Bromley Wood within the western portion of the LCT. The area of in-tact ancient woodland in addition to the heritage designations contributes historic landscape quality. The value of the landscape reduces closer to the Blithe River where trees and field boundary hedges become sparser. The elevated landform allows some long views to the north where trees and hedgerows allow and there is some visibility to the moving traffic and noise of the busy A50 road located within Settled Plateau Farmlands LCT to the north which has an urbanising influence on the LCT. Overall the lack of roads and settlement gives the LCT a quiet and remote character, however. It is considered to have Medium to High visual susceptibility.

By combining judgments on value and susceptibility, an overall level of sensitivity is derived. In this instance, the visual sensitivity of the Settled Plateau Farmlands LCT to the Development is judged to be Medium to High.

4.2.3 Dissected Sandstone Cloughs and Valleys LCT

The north-eastern part of the study area is located within Dissected Sandstone Cloughs and Valleys LCT. The Bare Ground ZTV in Figure 4 indicates that there could be visibility to the Site from of the LCT.

Key landscape characteristics are:

- Steeply sloping landform with incised valleys;
- Broadleaved and conifer woodland;
- Stone walls and buildings;
- Small sunken enclosed lanes; and
- Low intensity pastoral farming.

Key visual characteristics represented within the study area are:

- The landscape is characterised by its deeply incised wooded valleys running through a smoothly undulating upland pastoral landscape of regular and irregular fields. Hedgerow condition varies from well-trimmed and intact to very gappy, with grown up individual trees. The proximity to the highlands is constantly reinforced throughout the landscape by the stone architecture, drystone walls and dominant views to higher ground.
- The scale of the landscape very much depends on the position from which it is being viewed. Small intimate wooded valleys alternate with distant views, although the narrow sunken nature of the lanes with extensive hedge banks and tall hedges often also confines views when travelling through the area.
- Farming varies from large intensive pastoral sheep and cattle farms, to collections of smallholdings. Sand and gravel quarries are very much an obvious feature of the area and localised early industrial influences are important.
- The birch/oak woodlands characteristic of this area, especially on the steep valley sides away from the influence of farming, are now being added to in places by conifer plantations on the flatter upper areas.

Negative attributes include:

- Past and present sand and gravel quarrying;
- Industrial sites;

- Stockproof fencing; and
- Busy main roads.

Landscape character and value:

'The critical factors which currently limit landscape quality are a decline in the condition of some of the characteristic landscape features described above and, to a lesser extent, the introduction of some incongruous features and the loss of some of the semi-natural vegetation characteristic of this landscape type (i.e. ancient woodland, semi-natural grasslands and heathland). This landscape character type is locally sensitive to the impacts of development and land use change.'

Sensitivity to the Development

In terms of value, the landscape of Dissected Sandstone Cloughs and Valleys LCT is located within the Green Belt and contains part of the Conservation Areas at Caverswall, and a series of largely Grade II Listed Buildings which are mostly associated with the village. These designations reflect the historic character of the villages and landscape of the LCT.

The quality of the landscape is variable with a pattern of mostly small to medium-scale fields with many sections of hedge remaining in-tact and well maintained and hedge trees located west of Callow Hill; and much larger, open and often arable fields to the east. The well-used A521 crosses this area. It is considered that the value of the LCT within the study area is higher in the western part, lower in the eastern part and Medium overall.

There are some long views toward the Site from the LCT given its elevated position although the trees and hedges on the western portion reduce intervisibility. The LCT is moderately open to long views to the south although trees and hedges provide some screening. The LCT is considered to have Medium susceptibility.

Guidance states that "This landscape character type is locally sensitive to the impacts of development and land use change."

By combining judgments on value and susceptibility, an overall level of sensitivity is derived. In this instance, the visual sensitivity Dissected Sandstone Cloughs and Valleys LCT to the Development is judged to be Medium.

4.2.4 Sandstone Hills and Heaths LCT

The western part of the study area is located within Settled Plateau Farmlands LCT. The Bare Ground ZTV in Figure 4 indicates that there could be some visibility to the Site from within the LCT.

Key visual characteristics are:

- Varying from open, intensive arable and pastoral farming, where hedgerows are closely trimmed and in decline, to small-scale intimate areas in which large grown-up intact hedges and numerous hedgerow oaks limit views through or across the landscape.
- In the more intensively farmed arable areas hedgerow tree cover of oak and occasional ash is sparse resulting an open, smoothly textured landscape with extensive views across.
- A pronounced landform, strongly undulating but flattening considerably in parts, results in the land cover elements being viewed as individual components of the landscape and field pattern showing up from elevated viewpoints.

The network of winding ancient lanes, linking the small to medium sized farms, hamlets and individual properties of typical Staffordshire red brick, are often sunken and have extensive sandstone banks in the areas of more pronounced landform. These dictate views and give a very rural feel to the landscape.

- Distinct characters are determined by different landform and woodland characteristics. The open flatter areas where everything is on view - including intrusive elements such as commuter properties, main roads and electricity pylons - are characterised by medium sized farms and large estates, whilst the ancient pattern of small fields and predominantly pastoral land-use of the steep valleys imparts a more peaceful character to the areas of smaller scale.

Negative attributes include:

- Introduction of extensive post and wire fencing;
- Field trees;
- Modern housing;

- Industrial development; and
- Busy main roads.

Landscape character and value:

'The critical factors which currently limit landscape quality are the loss of characteristic landscape features, the poor condition of those that remain, and the introduction of the incongruous features noted above. The area between Standon and Chapel Chorlton has been identified as a 'landscape at risk' of sudden loss of quality (see Section 7.18 et seq. of the Supporting Documentation) and measures to meet the BAP targets listed below will be critically important in preventing such a loss.

This landscape character type is locally sensitive to the impacts of development and land use change.

Sensitivity to the Development

In terms of value, the landscape of Sandstone Hills and Heaths LCT is located in the Green Belt and contains Conservation Areas at Moddershall and Fulford and a series of largely Grade II Listed Buildings, mostly associated with those villages. The LCT also contains some ancient woodland. These reflect the historic character of the villages and parts of the landscape within the LCT.

The quality of the landscape is variable with fields ranging from large to small, and tree cover ranging from well-wooded areas in the more elevated part between Moddershall, Fulford and The Potteries to the north, to more open on the west-facing slopes. It is considered that the value of the landscape within the study area and Site is Medium.

The LCT has some long views within western parts on west-facing slopes and visibility towards the Site tends to be more limited by landform and the level of tree cover within eastern parts the LCT. The LCT therefore has a lower susceptibility to the Development within views.

By combining judgments on value and susceptibility, an overall level of sensitivity is derived. In this instance, the visual sensitivity Sandstone Hills and Heaths LCT to the Development is judged to be Low-Medium.

4.3 Landscape Designations, Protected Features and Heritage Designations

Landscape-related designations and protected features identified within the study area are summarised below and shown on Figure 7.

A number of cultural heritage assets have been assessed within this LVIA in terms of their contribution to landscape character or to a visitor attraction in accordance with GLVIA3, and may have been assessed in terms of effects on cultural heritage features and effects on setting of an asset in the cultural heritage assessment.

The Site is located in Green Belt but is not covered by any national or local landscape designations and trees within or adjacent to the Site are not covered by a Tree Preservation Order (TPO).

4.3.1 Green Belt

The Site and the central and western parts of the study area are designated as part of the North Staffordshire Green Belt which is protected by national and local policy.

The fundamental aim of Green Belt is to prevent urban sprawl by keeping land permanently open and the essential characteristics of Green Belt are their openness and their permanence.

Paragraph 143 of the NPPF states that the Green Belt serves the following five purposes:

- *'To check the unrestricted sprawl of large built-up areas;*
- *To prevent neighbouring towns merging into one another;*
- *To assist in safeguarding the countryside from encroachment;*
- *To preserve the setting and special character of historic towns; and*
- *To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.'*

The LVIA assesses the potential impacts of the proposal on the 'openness' of the Green Belt within study area, in the context the five purposes for designation.

Green Belt is a local designation and is protected by Staffordshire planning policy SP7 and E5. It is designated in order to protect the countryside around Stoke-on-Trent from over development but is not a scenic designation. As a landscape designation it is considered that it has medium value and susceptibility. It is considered that it has a Medium sensitivity.

4.3.2 Conservation Areas

Four Conservation Areas are located within the study area. They are located at Fulford located close to the south-west boundary of the Site; Caverswall located 3km to the north; Hilderstone which is located 3km to the south; and Moddershall which is located 3km to the south-west. Conservation Areas are a national level designation.

The locations of Conservation Areas are marked in Figure 7.

The LVIA assesses Conservation Areas in terms of their contribution to the character of the landscape.

4.3.3 Scheduled Monuments

There are four Scheduled Monuments located within the study area as follows:

- Paysley Hall moat 2.3km to the south-east;
- A moat located 3.3km to the south-east;
- A moat at Hilderstone located 3.5km to the south; and
- A moat located 3.4km to the west at Hartwell.

The locations of Scheduled Monuments are marked in Figure 7.

Scheduled Monuments are a national level designation.

The LVIA assesses Scheduled Monuments in terms of their contribution to the character of the landscape.

4.3.4 Listed Buildings

There are no Listed Buildings located within the Site or close to its boundaries. There are a number of Listed Buildings located within the study area which tend to be located at the villages of Fulford and Caverswell, and within the areas to the north-east of the A50.

The locations of Listed Buildings are marked in Figure 7.

Listed Buildings are a national level designation and the LVIA assesses Listed Buildings in terms of their contribution to the character of the landscape.

4.3.5 Ancient Woodland

There are a number of ancient woodlands associated with the higher southern slopes of the Blithe Valley.

4.4 Visual Receptors

The visual assessment draws on the ZTV, site visits and viewpoint analysis to determine the potential effects of the Development on views and visual amenity experienced by a variety of visual receptors (people) within the study area.

Visual receptors include people who:

- Live and work in the area;
- Visit the area for a specific reason (for instance, visitors to tourist or recreational attractions); and
- Pass through the area (on foot, by horse, by bicycle, by car or by train).

In this instance, the following key receptor groups have been identified within the study area:

- Occupiers of residential properties (individually, in groups or part of larger settlements);
- Users of sign-posted recreational routes (long distance walking routes as well as local footpaths, bridleways and byways);
- People engaged in outdoor sport or recreation; and
- Users of the existing road and rail network (motorways, A- and B-class roads, local roads and railways).

Within these key receptor groups, the assessment of effects focusses on receptors who are most likely to undergo a 'significant' change in visual amenity arising from views gained of the Development.

4.4.1 Settlements and Residential Properties

The Site is located in a predominantly rural landscape in which settlement is typical of small villages or scattered farmsteads and residential properties. This pattern of settlement is shown on Figure 7.

The main settlements identified within the study area are the following towns and villages:

- Fulford located 250m south-west of the Site;

- Saverley Green located 250m east of the Site;
- Gorstybirch located 430m north of the Site;
- Stallington located 490m west of the Site;
- Blythe Bridge located 530m north of the Site;
- Draycot in the Moors located 1.2km to the north-east of the Site;
- Totmonslow located 3.3km to the east;
- Cresswell located 1km east of the Site;
- Morrilow Heath and Stone Heath located 3km to the south-east;
- Hilderstone located 3km to the south;
- Mossgate located 1.5km to the south-west; and
- Moddershall located 3.1km to the south-west.

Hilderstone, Moddershall, Morrilow Heath and Stone Heath have been omitted from the assessment as they are not affected by the ZTVs.

In considering effects on views from these settlements, the assessment takes account of any public open spaces or public realm areas included within the settlement boundaries as well as residential areas that make up the built form.

In addition to the main settlements, there are a number of isolated properties, small groups of residential properties and farmsteads scattered across the study area from which there may be views of the Development.

A radius of 1km was considered appropriate given the low-rise nature of the Development and the contained nature of the Site afforded by boundary vegetation. The strong pattern of hedgerows, trees and wooded areas which characterises the wider area also has a considerable limiting effect on views. Within 1km radius, 35 individual or small groups of properties have been identified and are shown on Figure 8 where they are numbered R1, R2, etc.

4.4.2 Outdoor Sport and Recreation

People engaged in outdoor sport or recreation within the study area have potential to be affected by the Development.

Two footpaths cross the Site and a number of footpaths, bridleways and byways cross the study area and are included in the assessment. These are shown on Figure 7. Users of recreational routes which pass within approximately 1km of the Site have the most potential to undergo a 'significant' effect on views and visual amenity arising from the Development and the LVIA focuses on these and these are shown in Figure 8.

The routes affected by the Bare Ground ZTV (Figure 4) within 1km of the Site include:

- Two public footpaths crossing the Site between Fulford and Saverley Green and linking with Cresswell Road and Sandon Road (C12, C13, C15, C16, C26, C27, C29 and C24 and C25).
- Public footpath located on the track between Fulford Hall and Saverley Green Road (C13);
- Public footpath linking the north side of Fulford with Stallington and continuing to the west (C1, C4, C2 and C10);
- Public footpaths located on the south-east side of Fulford linking with Cresswell Road (C11, C18, C23, C31 and C34);
- Short sections of public footpath located on the west side of Fulford (C9, C19, C20, C33, C36);
- Public footpath linking Blythe with Saverley Green (For20b and C26); and
- Public footpaths located north of the A50 (For6 and DrM9).

In addition to local PRoW, other recreational routes and recreational locations affected by the Screening Effects ZTV within 3.5km of the Site include:

- The Stone Circles Challenge long distance footpath which crosses the southern part of the study area and passes the Site within 550m of Fulford.
- Foxfield Steam Railway and Blythe Bridge station located 1.6km to the north;
- Fulford Village Hall and open space located 600m to the south; and
- Blythe Cricket Club located 1.8km to the east.

Barlestone Common and Nature Reserve are located outwith the ZTVs and have not been assessed.

4.4.3 Transport Routes

Key transport routes which pass through the study area and which are included in the assessment are shown on Figure 7.

The following routes minor roads located within 1km are located within the Screening Effects ZTV (Figure 5):

- Saverley Green Road and Fulford Road;
- Cresswell Road and Sandon Road;
- Long Lane and Sandy Lane; and
- Stallington Road.

The following routes are located within 3.5km within the Screening Effects ZTV (Figure 5):

- The principal road in the study area is the A50 which crosses the study area to the north of the Site;
- A520;
- A521;
- A50005;
- A5029; and
- East Midlands Railway.

The A520 and the A5005 are located out with the Screening Effects ZTV and have been discounted from further assessment.

4.5 Future Baseline and Cumulative Sites

Cumulative effects are additional effects on key characteristics of landscape character and / or on views and visual amenity that arise when the Development is seen or experienced in conjunction with one or more other large developments, including other solar array developments, from a particular location. Cumulative effects on views and visual amenity may also occur sequentially where two or more developments may be seen as part of a journey, for instance, along a road or recreational route.

As part of the baseline, a search was undertaken of other large developments, including ground-mounted solar PV array developments that are operational, approved or subject of a valid planning application within 3.5km of the Site. Developments include:

- The operational Lower Newton Farm Solar Farm (11.5MW). Planning application number SMD/2014/0197, located 2.5km east of the Site; and
- The approved Upper Newton Farm Solar Farm with battery storage facility. Planning application number SMD/2022/0160, located 2.5km east of the Site adjoining the Lower Newton Solar Farm.

In addition the planning application Lower Tean Leys Solar Farm Planning application number SMD/2023/0059, located 3.6km south-east of the Site has been included in the cumulative developments because it physically and visually forms a cluster of solar farms with the two developments located to its west.

There is a considerable area of new housing being developed 670 m to the north-east of the Site beyond the A50 at Stonehouses.

In addition the following developments at pre-determination stage:

- An area of new houses on the south-east side of Blythe located 680m east of the Site;
- A motorist services on the A50 3.2km to the east of the Site and adjacent to the Lower and Upper Newton Solar Farms;
- An application to restore the quarry area to create a golf course east of Drawycott Cross 3.2km to the north-east; and
- A request for a scoping opinion for a proposed Combined Cycle Gas Turbine (CCGT) Power Station located on the east side of Cresswell 1.6km east of the Site.

Other than this development, it is not anticipated that the baseline conditions of much of the local landscape character and land use described above will differ significantly in the future. This is due to the nature of the Site under agricultural use, and the existing agricultural uses and woodland cover, and existing settlements and development which dominate the study area. In addition the designation of the Site and much of the study area as Green Belt will also limit change.

Cumulative developments are shown on Figure 6.

Section 5.0: ZTV Analysis and Viewpoints

This section considers the visibility patterns of the Development and the assessment of visual effects at the viewpoints.

5.1 The Zone of Theoretical Visibility

The Bare Ground ZTV to 3.5km (Figure 4) indicates a pattern of visibility to the solar panels element of the Development across the Site itself, much of the north-east facing slopes and some of the south-west facing slopes of the Blithe Valley. Some watershed areas including Fulford and Moss gate are affected by visibility. Localised undulations screen visibility in places and most of the slopes above the Trent Valley are screened. Beyond 3.5km the ZTV indicates visibility to the south-east following the base of the Blithe Valley, and to the higher ground to the north.

The Screening Effects ZTV to 3.5km (Figure 5) takes into account representative screening by vegetation measuring 8m and buildings measuring 10m as taken from OS VectorMap data. It indicates that there would be a more broken pattern of visibility which would further decrease beyond 1km from the site and particularly within urban areas to the north-west and rural areas to the north-east and the south-east.

The ZTVs indicate that visibility of the Development could occur as follows:

- Within the Site there would be clear visibility to the Development although at no location would all of the Site be visible given the division of fields by hedges and trees and the sloping nature of the ground.
- Intermittent visibility to parts of the Site from most areas within 1km radius excluding parts of Blythe and the A50, much of Fulford, Stallington, Saverley Green, Gorstybirch, the Mount Pleasant area, and the areas beyond them.
- Increasingly intermittent visibility from the area to the north-west up to and including small parts of Meir.
- Increasingly intermittent visibility from the north side of the Blithe Valley including Cookshill, Callow Hill, the north-west/south-east trending ridgeline at Draycott Cross and the countryside between Forsbrook and Totmanslow; and excluding a series of three shallow valleys.
- From the north-facing slopes of the Blithe Valley located to the south-east of the Site up to and beyond 8.5km.
- A small area of potential visibility from the B5066 north of Moss gate.

Actual visibility has been identified by using the ZTVs and verification in the field and using winter and summer photographs, and has been recorded in the following assessment. It would tend to be further reduced by screening by hedges, and also increasing distance from the Site causing detail to become less visible and the Development to become less prominent in the main.

In reality, changing weather patterns and local climatic conditions would influence visibility of the Development in terms of the extent of view, the colour and contrast of the solar panels and thus the perceived visual impact. There would be some periods of low visibility (i.e. fog, precipitation, and bright sunny conditions that are accompanied by haze) as well as periods of good visibility in clear weather. However the Site is low-lying and the latter would predominate.

The solar panels would tend to be seen as pale elements and sometimes like an area of water within the landscape during periods of cloud cover, and darker elements when reflecting blue skies. In some instances, and from some locations, the panels may be reflective in periods of bright sunshine. To this end, a Glint and Glare Assessment Report has been submitted as part of the planning application and these effects are not included in the LVIA.

Early site assessments have indicated that it is unlikely that significant landscape or visual effects could occur at distances of over 3.5km which forms the study area. Patterns of visibility have been reflected in the scope of the assessment.

5.2 Viewpoint Assessment

In order to gain an understanding of the nature of changes to views and visual amenity arising from visibility of the Development, nine viewpoints were identified in the visual baseline section to represent visibility from key visual receptor groups (e.g. residents, recreational walkers, road users, etc.) in a selection of locations.

For each viewpoint, the following information is provided:

- A representative baseline photograph (90 or 180 - degree horizontal angle of view) orientated in the direction of the Development to illustrate the existing view;
- A description of the existing baseline view; and
- A qualitative assessment of the potential visual effects, taking account of the sensitivity of the receptor and the predicted magnitude of change in view.

In addition photomontages are presented for Viewpoints 1-3 in order to visually describe some of the closer viewpoints, and photowires are presented for Viewpoints 1-7 in order to show which areas of the views would be affected. It is recognised that different receptors would perceive the landscape in different ways, depending on whether they live, work, or are recreating in the area, and how they are travelling e.g. in a vehicle or foot, etc. The location of the viewpoints is shown in conjunction with the Bare Ground and Screening Effects ZTVs in Figures 4-5.

Those living within, or travelling through, the landscape of the study area on a regular basis may appreciate it beyond the perception of a visitor and may appreciate familiarity of landscape and views, based on their experience of viewing it in a certain way, over time and in its present state without intervention. Therefore, those who notice change within the landscape may be more acutely affected by change irrelevant of the scale of the Development. There may also be a different appreciation for change where such change for instance brings social or economic benefits and as such it is difficult to interpret how such changes would be interpreted by various users other than as set out in the methodology in Appendix 1.

The following assessment considers effects in relation to the viewpoints.

Table 5: Viewpoint Assessment

| Viewpoint 1 - Footpath between Site and Fulford | | | |
|--|--|--|--|
| <p>This viewpoint is located at OS grid reference E395499 N338576, next to the LEMP boundary and 65m from the nearest solar panels. The viewpoint is located on a public footpath which links Fulford with Saverley Green and represents recreational users crossing the Site. It is located in Settled Plateau Farmland Slopes LCT. The view is centred on a northerly direction and a panorama photograph, photomontage and wirelines with a 180 degree view splay are presented in Visualisations 1a-h.</p> <p>The solar panels located in F13 would be prominent seen at this distance and they would affect much of a 90 degree viewsplay. The front face of the panels would be visible and they would screen some of the longer view. The solar panels in F15 would also be visible although they would be less prominent given the distance from the viewer. The solar farm located at Highfield Farm would be cumulatively visible in the distance. Construction processes would be prominent.</p> <p>The growth of the proposed hedge located on the boundaries of F13 and F15 would largely screen views to the solar panels to the north of the viewpoints after 5 years with some filtered views to the solar panels likely during periods of foliage loss. The solar panels to the east would remain visible through the field gate. The hedges would also screen some of the longer, panoramic views and increase a sense of enclosure.</p> | | | |
| Sensitivity | Recreational Users: High | | |
| | Construction | Year 1 | Year 15 |
| Magnitude of Change | Medium | Medium | Low |
| Level of Visual Effect | Recreational: <u>Major/Moderate</u> | Recreational: <u>Major/Moderate</u> | Recreational: Moderate not significant |
| Viewpoint 2 - Saverley Green Road | | | |
| <p>This viewpoint is located at OS grid reference E396169 N338290, 5m from the LEMP boundary, 149m from the closest solar panels on the south side of Saverley Green Road and is representative of views of road users. It is located in Settled Plateau Farmland Slopes LCT. The view is centred on a north-westerly direction, 5 m from the Site and a panorama photograph, photomontage and wirelines with a 180 degree view splay are presented in Visualisations 2a-d.</p> <p>The existing view is across the tarmac road and through the existing gap in the road side hedge into the arable field beyond. The field rises gently to the north-west and is enclosed by hedge and trees.</p> <p>The solar panels on the southern edge of F19 in the middle distance. The new road access bell mouth, fencing and security gates would be clearly visible in the foreground.</p> | | | |

Construction activities including removal of approximately 35m of hedge, excavations, movement of vehicles and formation of the access road and bell mouth at the road entrance would be clearly visible. This would cause a significant level of disruption to the view over a period of circa 12 months.

At Year 1 the built development elements would be operational, tree and hedges planted and the enhanced grassland located in the area between the solar panels and the road would have established. The solar panels would tilt towards the viewer and be visible as pale or dark tones and smooth man-made elements.

At Year 15 the new and existing hedges located on Saverley Green Road and lining the new access track would have matured and would be maintained at a minimum of 3.5m, screening the solar panels and fencing altogether although the security gates would remain visible.

Changes would affect all of a 180 degree view.

The changes would affect users of Saverley Road travelling at speed, passing the main entrance. Views represent the 35m section to the east where the existing hedge would be removed until the replacement hedge has matured.

| | | | |
|-------------------------------|---|--------------------------------|----------------------|
| Sensitivity | Road Users: Medium | | |
| | Construction | Year 1 | Year 15 |
| Magnitude of Change | High | Medium | Low |
| Level of Visual Effect | Road: <u>Major/Moderate</u> significant | Road: Moderate not significant | Road: Moderate/Minor |

Viewpoint 3 – Lower Gorsty Birch

This viewpoint is located at OS grid reference E395560 N339879, 20m from the LEMP boundary and 164m from the nearest built development located in F1. It is representative of residential views of people at the properties of Lower Gorsty Birch (R4) and Logobi (R5) as well as the road access to Little Leacroft Farm. It is located in Settled Plateau Farmland Slopes LCT. The view is centred on a south-easterly direction and a panorama photographs, photomontages and wirelines with a 180 degree view splay are presented in Visualisations 3a-h. The existing view is across pastures and gently rising ground, with field hedges, hedge trees and woodland blocks combining to screen most ground level views. Small tree groups frame the view. Built structures include the buildings of Little Leacroft Farm, the minor road in the foreground, and agricultural fences and gates but overall the view has a rural and tranquil character.

The construction processes and the solar panels located in the western sides of F1, F3 and F4 would be clearly visible within 164m. In addition the structures of the substation including the telecommunications mast would be clearly visible centrally in the view, located to the east of the farm beyond a series of hedges. The mast would not break the skyline however and would be largely back-clothed by existing trees which would decrease its prominence. Construction processes and solar panels would also be visible in F5, F6, F7 and F8. The dark, rear sides of the solar panels would be seen at this angle and prominence would depend on lighting conditions but they would appear less prominent than if seen from the front.

The Development would increase the level of built development to a view spanning 140 degrees, albeit visually broken up by trees and buildings. It would reduce the sense of openness of the fields to a degree.

The growth of boundary hedges and proposed trees would mostly screen the built development over time and the resulting changes would be in character with the present view.

| | | | |
|-------------------------------|--|--|---|
| Sensitivity | Residential users: High Road Users: Medium | | |
| | Construction | Year 1 | Year 15 |
| Magnitude of Change | Medium | Low to Medium | Negligible to Low |
| Level of Visual Effect | Residential: <u>Major/Moderate</u> Road: Moderate not significant | Residential: <u>Moderate</u> Road: Moderate not significant | Residential Moderate/Minor Road: Minor |

Viewpoint 4 - Footpath to north of the Site

This viewpoint is located at OS grid reference E395926 N340254, 270m from the LEMP boundary AND 331m from the closest built development located in F1. It is representative of recreational footpath users' views into the Site. It is located in Settled Plateau Farmland Slopes LCT. The view is centred on a westerly direction and a panorama photograph with a 90 degree view splay and wireline are presented in Visualisation 4a-b.

The existing view is across rough grazings to pastures and gently rising ground, with field hedges, hedge trees and woodland blocks combining to screen most ground level views. Other than fences and a stile there are no other built elements within the 90 degree view other than a couple of distant farm buildings, although the noise of the nearby A50 located 600m to the north-east and visibility to a telecommunication mast and houses at Gorstybirch within wider views reduce a sense of tranquillity.

The construction processes in F1 and F8, and solar panels located in the eastern part of F1 would be clearly visible beyond the perimeter hedge with some glimpse views to some smaller areas of solar panels located in the central parts of the Site although existing trees and hedges would screen the majority of the Development. It is likely that most of the mast and substation would be screened although lighting may be visible particularly during periods of foliage loss. At Year 15 the boundary hedges and proposed hedge trees in F1 would have matured sufficiently to screen most built development. Visibility at all life stages of the Development would be greater in the winter during foliage loss.

The more visually recessive back sides of the solar panels on frames would be visible from this direction but at this proximity the structures would be clearly visible. Built development would affect approximately 60% of a 90 degree view which is currently characterised by a rural, largely undeveloped landscape. The built development would change the largely undeveloped view although it would not be dominant and the character of the view would remain rural. Effects would reduce with the maturing of the mitigation planting.

| | | | |
|-------------------------------|-------------------------------|-------------------------------|---------------------|
| Sensitivity | Recreational Users: High | | |
| | Construction | Year 1 | Year 15 |
| Magnitude of Change | Low | Low | Negligible |
| Level of Visual Effect | Recreational: <u>Moderate</u> | Recreational: <u>Moderate</u> | Recreational: Minor |

Viewpoint 5 - Fulford Lane, Stallington

This viewpoint is located at OS grid reference E394841 N339636, 537m from the LEMP boundary and 557m from the nearest solar panels. It is representative of views from the junction of Fulford Lane and Stallington Road and nearby houses. It is located in Settled Plateau Farmland Slopes LCT. The view is centred on a south easterly direction and a panorama photograph with a 90 degree view splay and wireline are presented in Visualisation 5a-b.

The existing view is through field gates to fields and the northern part of the Site. The buildings at Little Leacroft Farm are visible as well as occasional wood poles and distant electricity pylons. The maze in the foreground field screens views to central parts of the Site which would be partially visible at other time including winter.

There would be some glimpse views to the tops of some of the panels located to the north of the buildings at Little Leacroft Farm including F1 and F3. The mast and substation would be screened by trees on the Site. Existing hedges would screen the lower portion of the solar panels and this would further reduce with growth of existing hedges and proposed hedge trees. In winter or periods when there are lower-lying crops in the foreground fields there may be some visibility to solar panels located in F5 and F7, seen beyond boundary hedges and the trees located on the west side of F5 and F7. The solar panels would not be prominent at any point however.

| | | | |
|-------------------------------|---|--|---|
| Sensitivity | Residential users: High. Road Users: Medium. | | |
| | Construction | Year 1 | Year 15 |
| Magnitude of Change | Negligible | Negligible | Negligible |
| Level of Visual Effect | Residential: Minor Road: Minor/Negligible | Residential: Minor Road: Minor/Negligible | Residential: Negligible Road: Negligible |

Viewpoint 6 - Long Lane, Fulford

This viewpoint is located at OS grid reference E395729 N337548, 755m from the LEMP boundary, 780m from the closest solar panels and is representative of minor road and the Stones Circles Challenge long distance route. It is located in Settled Plateau Farmland Slopes LCT. The view is centred on a northerly direction and a panorama photograph with a 90 degree view splay and wireline are presented in Visualisation 6a-b.

The existing view is across the small valley located to the east of Fulford towards Saverley Green Road and the rising ground beyond which forms an interim horizon, largely covered by trees. In the far distance the northern slopes of the Blithe Valley area visible and also the distant Peak District on clear days. The farm buildings of Fulford Hall are visible and the southern boundary of F15 is visible on the horizon. The view is rural in character with occasional distant built elements such as the single wind turbine located near Draycott Cross.

The solar panels would be mostly screened by the landform and intervening trees and hedges. There would, however, be visibility to the outer edge of the groups of solar panels located on the south sides of F13 and F15 located on the skyline where not screened by intervening vegetation. The front faces of the panels would be seen against the sky although their potential prominence in this location would be tempered by reflection of the tones of the sky and the small change at this distance. The growth of the proposed hedge and trees on the boundaries of F13 and F15 would fully screen the solar panels over time.

| | | | |
|-------------------------------|--|---|--|
| Sensitivity | Recreational Users: High. Road Users: Medium. | | |
| | Construction | Year 1 | Year 15 |
| Magnitude of Change | Negligible | Negligible | Negligible |
| Level of Visual Effect | Recreational: Minor Road: Minor/Negligible | Recreational: Minor Road: Minor/Negligible | Recreational: Negligible Road: Negligible |

Viewpoint 7 - North end of Cresswell

This viewpoint is located at OS grid reference E397684 N339484, 1.47km from the LEMP boundary and 1.49km from the nearest solar panel. It is located on the well-used Sandon Road in the northern part of Cresswell, on the junction with two public footpaths and next to Cresswell Sports Ground. It is located in Settled Plateau Farmland Slopes LCT. The view is centred on a south westerly direction and a panorama photograph with a 90 degree view splay and wireline are presented in Visualisation 7a-b.

The existing view is across the road and the road-side hedge in the foreground, to the gently sloping ground and fields of pasture, which rise to the west with increasing tree cover. The rest of the view is screened by road-side vegetation. The view is predominantly rural in character and largely undeveloped beyond the road.

There would be some views to central and northern parts of the Site although most parts of the Site would be screened by trees on the Site or in nearby vegetation areas.

Limited central parts of the Development including F8, F9 and F12 would be visible in locations where the ground slopes towards the viewer and mature hedge boundary trees within the Site do not form a screen. Elsewhere there may be a broken pattern of visibility during periods of leaf loss and in summer the Development would be largely screened by trees and hedges on the Site and within the intervening landscape.

Some construction activities would be visible although primarily through movement, the change of green pasture to the browns of soil, and the use of lights. These changes are typical of the surrounding landscape however. The parts of the Site which are visible are interspersed by trees and the changes would affect a small part of the view.

Seen from this direction the sides of the solar panels and frames would face the viewer, presenting a less prominent side.

At Year 15 the growth of trees and hedges would reduce visibility to an imperceptible degree and changes would remain the same.

Generally the Development would be more visible during periods of foliage loss although trees and hedges would continue to soften and partially screen most of the Site.

| | |
|--------------------|---|
| Sensitivity | Residential Users: High Recreational Users: High. Road Users: Medium. |
|--------------------|---|

| | Construction | Year 1 | Year 15 |
|-------------------------------|---|---|--|
| Magnitude of Change | Negligible | Negligible | Negligible |
| Level of Visual Effect | Residential and Recreational: Minor Road: Minor/Negligible | Residential and Recreational: Minor Road: Minor/Negligible | Residential and Recreational: Negligible Road: Negligible |

Viewpoint 8 – Totmonslow

This viewpoint is located at OS grid reference E399243 N339762 3km east of the LEMP boundary and the nearest built development, located on the junction of the busy main road through the village and a public footpath on the west side of the village. It is well used and is representative of recreational, residential and road users' views into the Site. It is located in Settled Plateau Farmland Slopes LCT. The view is centred on a south westerly direction and a panoramic photograph with a 90 degree view splay is presented in Visualisation 8.

The existing view is across the gently rolling landscape of the Blithe Valley, the foreground arable fields are replaced by what appears to be an increasingly wooded landscape as scattered trees overlap in the view. The area of the Site is located on the gently rising slopes of the valley and is partially screened by intervening vegetation. The view is predominantly rural in character although a high voltage electricity pylon and wood poles and prominent in the foreground.

The Site is largely screened from view and it is unlikely that the detail of construction would be clearly visible. Any lighting may be visible but scattered lights are typical of the wider view.

The Site is largely screened from view by intervening trees and those located within the Site itself. It is possible that there could be glimpse views to some of the solar panels located in the most elevated and western parts of the Site. Visibility would be greater during foliage loss but would remain limited.

It is not likely that visibility would change significantly at Year 15.

| | |
|--------------------|---|
| Sensitivity | Residential users: High. Recreational Users: High. Road Users: Low. |
|--------------------|---|

| | Construction | Year 1 | Year 15 |
|-------------------------------|--|--|--|
| Magnitude of Change | Negligible. | Negligible. | Negligible. |
| Level of Visual Effect | Residential Users: Minor. Recreational Users: Minor. Road Users: Negligible. | Residential Users: Minor. Recreational Users: Minor. Road Users: Negligible. | Residential Users: Minor. Recreational Users: Minor. Road Users: Negligible. |

Viewpoint 9 - Draycott Cross

This viewpoint is located at OS grid reference E398834 N341566, 3.2km north-east of the LEMP boundary and the nearest built development, located on Cheadle Road at Draycott Cross. The road is well-used and the view represents road users and users of a Byway open To Traffic. It is located in Sandstone Hills and Heaths LCT. The view is centred on a south westerly direction and a panoramic photograph with a 90 degree view splay is presented in Visualisation 9.

The existing view is panoramic, across the Blithe Valley to the north-facing slopes which are well wooded with occasional glimpses of the paler greens of fields. The road leads the eye to the north and the nearby brick house forms a focus. The view is predominantly rural although occasional buildings are visible in the distance and the line of high voltage electricity pylons which follow the valley, punctuate the view. The Site is visible as part of the tree-filled landscape, rising to an indistinct hill; a few of the houses in the western part of Fulford visible beyond. Some of the built development of The Potteries is visible within the right hand side of the view.

Western parts of the Development located between F5 and F13 would be visible in locations where the ground slopes towards the viewer and mature hedge boundaries trees within the Site do not form a screen. Elsewhere there would be a broken pattern of visibility, the Development largely screened by trees and hedges on the Site and within the intervening landscape.

| | | | |
|--|---|---|---|
| <p>Some construction activities would be visible although primarily through the change of green pasture to the browns of soil, and the use of lights. These changes are typical of the surrounding landscape however. From this distance the visible parts of the Site would register as a large building Site. Seen from this direction the darker, back side of the solar panels would face the viewer, presenting a less prominent side. At Year 15 the growth of trees and hedges would reduce visibility to an imperceptible degree given the views to sloping ground.</p> <p>Generally the Development would be more visible during periods of foliage loss although trees and hedges would continue to soften and partially screen parts of the Site.</p> | | | |
| Sensitivity | Recreational Users: High. Road Users: Medium. | | |
| | Construction | Year 1 | Year 15 |
| Magnitude of Change | Low to Negligible. | Low to Negligible. | Low to Negligible. |
| Level of Visual Effect | Recreational Users: Moderate/Minor. Road Users: Minor. | Recreational Users: Moderate/Minor. Road Users: Minor. | Recreational Users: Moderate/Minor. Road Users: Minor. |

5.2.1 Summary of Viewpoint Assessment

The assessment of effects at the nine representative viewpoints illustrates that there would be significant effects on recreational users close to the northern boundary and on the western boundary of Site, residential users on the northern side of the Site and Road users on Saverley Road during construction and Year 1. All effects would reduce and no longer be significant by Year 15 due to the maturing of hedges and trees.

The viewpoint assessment is summarised in Table 6 and all effects are assessed as being adverse unless stated otherwise.

Table 6: LVIA Selected Viewpoints

| Viewpoint Location | Receptors | Sensitivity | Magnitude of Change – Construction, Year 1, Year 15 | Effect – Construction | Effect Year 1 | Effect Year 15 |
|-------------------------------------|--------------|-------------|---|-----------------------|-----------------------|----------------|
| 1 Footpath between Site and Fulford | Recreational | High | Medium Medium Low | <u>Major/Moderate</u> | <u>Major/Moderate</u> | Moderate |
| 2 Saverley Green Road | Road Users | Medium | High Medium Low | <u>Major/Moderate</u> | Moderate | Moderate/Minor |
| 3 Lower Gorsty Birch | Residential | High | Medium Medium to Low Low to Negligible | <u>Major/Moderate</u> | <u>Moderate</u> | Moderate/Minor |
| | Road | Medium | | Moderate | Moderate | Minor |
| 4 Footpath to north of the Site | Recreational | High | Low Low Negligible | <u>Moderate</u> | <u>Moderate</u> | Minor |
| 5 Fulford Lane, Stallington | Residential | High | Negligible | Minor | Minor | Negligible |
| | Road | Medium | Negligible Negligible Negligible | Minor/Negligible | Minor/Negligible | Negligible |

| | | | | | | |
|--------------------------|--------------|--------|--|------------------|------------------|----------------|
| 6 Long Lane near Fulford | Recreational | High | Negligible Negligible Negligible | Minor | Minor | Negligible |
| | Road | Medium | | Minor/Negligible | Minor/Negligible | Negligible |
| 7 North end of Cresswell | Residential | High | Negligible | Minor | Minor | Negligible |
| | Recreational | High | | Minor | Minor | Negligible |
| | Road | Medium | | Minor/Negligible | Minor/Negligible | Negligible |
| 8 Totmonslow | Residential | High | Negligible | Minor | Minor | Minor |
| | Recreational | High | | Minor | Minor | Minor |
| | Road | Low | | Negligible | Negligible | Negligible |
| 9 Draycott Cross | Recreational | High | Low to Negligible | Moderate/Minor | Moderate/Minor | Moderate/Minor |
| | Road | Medium | | Minor | Minor | Minor |

Section 6.0: Assessment of Landscape Effects

This section considers the potential effects of the Development on the landscape resource in terms of the physical landscape of the Site, the designations and landscape character of the study area, and effects on the openness of the Green Belt during its operational phases.

Effects on the landscape of the Site relate primarily to a change in land-use from arable land to grazing land with solar panels and ancillary development. This would have a physical effect on the Site which, in turn, would affect the overall character of the Site. The Development will also potentially affect aesthetic and perceptual aspects of landscape character where it is experienced from the surrounding landscape.

The elements of the construction operational periods that could cause landscape effects are set out in section 2. During construction a number of excavations for foundations for the sub-station, inverters and small structures such as security cameras would cause localised variations in topography and the Site would gain an increased level of detail with the presence of machinery and construction materials.

All construction effects would occur over a period of circa 12 months and are considered to be short-term. All operational effects would occur over the permission period of the Development of 40 years and are considered to be long term. Operational effects may change over time as the mitigation planting and management regimes change as such an assessment of effects has been undertaken at Year 1 and Year 15.

Judgments about levels of effect are arrived at by combining levels of receptor 'sensitivity' with the predicted levels of 'Magnitude of Change' that are likely to arise from the Development being operated. This is set out in detail in Appendix 1 (Methodology) of the LVIA.

In summary, the sensitivity of a landscape character receptor takes account of its 'susceptibility' to the proposed change, together with any 'value' attached to the landscape. This is described in the following sections in relation to each landscape character receptor assessed.

Magnitude of change takes account of matters such as the 'size or scale' of change, the 'geographical extent' of area affected, the 'duration' of effects and their 'reversibility'.

The size or scale of change and geographical extent of area affected (at different scales from regional to site) are described in the following sections. In terms of the duration and reversibility of effects arising from the completed development, 'long-term' but 'reversible', and are not generally re-iterated in the assessment. All effects are assessed as 'adverse' unless stated otherwise.

6.1 Assessment of Effects on the Landscape Fabric of the Site

This section considers the construction and operational effects of the Development on the physical landscape of the Site.

6.1.1 Sensitivity to the Development

The Site is gently sloping but is generally well contained due to the extensive tree and hedge boundaries, particularly in central and southern parts of the Site. In addition to the trees and hedges, the Site contains a number of positive landscape features including blocks of mature woodland, ponds and scrub. The Site is largely undeveloped other than occasional tracks and fencing.

Existing landscape elements including land-use and field boundaries are of some value and could potentially be replaced or compensated for and there is relatively good potential for mitigation and enhancement of those. Overall, the Site has some ability to accept the type of change proposed, but would require and benefit from some mitigation. The susceptibility of the Site is therefore judged to be Medium.

In terms of value, the Site is undesignated but is located within Green Belt and is subject to Staffordshire Green Belt policy. Ponds, woodland, hedges and trees contribute to the value of the Site although they are typical of the wider area and in good to fair condition, but showing some signs of erosion in places. Two public footpaths cross it and provide access to the countryside. Overall, there is a moderate degree of scenic beauty and tranquillity. The value of the Site is therefore judged to be Medium.

The overall sensitivity of the Site to the type of change proposed is judged to be Medium.

6.1.2 Magnitude of Change

During the construction period the Development would introduce excavations, new materials, built structures and moving vehicles and personnel into most parts of the Site. Although agricultural practices

of ploughing, planting and cutting may occur in some parts of the Site at times, the grazing land use of most parts of the Site tends to result in limited change and human intervention. The Site currently contains few man-made features other than gates, tracks and fences. The presence of machinery, excavations and structures would introduce an increased level of detail within the relatively medium-scaled and ordered or simple landscape, and replace agricultural land use of the fabric of the Site.

During operation the Development would result in some long term alteration to, or loss of, landscape elements and features of the Site in order to accommodate the Development including substations, inverters and access tracks. These changes would be relatively localised and occur at intervals across the Site. The strings of solar panels would affect much of the Site but would allow the retention of grass and grazed land use. Relatively small areas of pasture would be replaced by hard standings and built elements although the solar panels would change the land use across most of the Site. There would also be a relatively small loss of hedges. The Development would also result in the planting of new hedgerows, hedgerow trees and a group of trees as well as improved management of existing hedgerows and trees over the operational life of the Development. These measures would strengthen field boundaries within the Site which, in turn, would help to restore characteristic features of the local landscape that have been lost or are in decline as a result of intensive farming practices or inappropriate management. In addition, some areas of existing pasture would be replaced by species-rich grassland or wildflower meadow.

During construction the magnitude of change to the fabric of the Site would be High.

At Year 1 and Year 15 the magnitude of change to the fabric of the Site would be Medium.

6.1.3 Effects

During construction there would be some large scale loss of grass and small scale loss of sections of hedging. Changes to landform would be relatively small.

During operation, the primary effect would be the change in land use from cattle grazing land with no or few built elements, to sheep grazing land with solar panels extending across the Site. Whilst much of the Site would remain grass covered, much of the Site would also be affected by solar panels located on frames above the grass. This change is considered to be an adverse effect.

Balanced against this, the landscape features within the Site that are considered to be of greatest value, including hedgerows, boundary trees, woodland and ponds, would be retained. In addition the proposed mitigation measures would also help to improve the landscape value and nature conservation value of the Site, increasing in value over time. As such, these aspects of the Development are considered to be positive in nature.

During construction the overall effect of the Development on the fabric of the Site is considered to be a Major/Moderate adverse effect.

At Year 1 and Year 15 the overall effect of the Development on the fabric of the Site is considered to be a Moderate and not significant. By Year 15 effects would be positive.

6.2 Assessment of Effects on Landscape Character

This section considers the construction and operational effects of the Development on the landscape character of the Site and study area. The effects of the Development on landscape character have been considered in relation to the four LCTs identified in section 4. The assessment of character sensitivity refers to the Structure Plan Stafford Borough Landscape Descriptions¹⁷.

6.2.1 Settled Plateau Farmland Slopes LCT

Settled Plateau Farmland Slopes LCT includes the 'host' landscape for the Site and therefore has the potential to be directly affected by the Development. The character assessment of Settled Plateau Farmland Slopes LCT has been used to identify the landscape and visual sensitivity of the Site and has been identified as Medium.

Landscape effects are considered within the Site and visual effects across the 3.5km study area. The LCT is represented by Viewpoints 1-8.

During construction there would be wide scale disruption to land use due to construction processes and the presence of machinery, plant and people. During operation the Development would result in large areas of built development including solar panels and associated electrical structures, a

telecommunications mast plus fencing and access tracks located across much of the Site other than field boundaries and areas of mitigation planting.

The Screening Effects ZTV in Figure 5 indicates that there could be some visibility to the Development from considerable parts of the LCT represented within the study area other than the area to the south. Actual visibility would tend to be to small proportions of the Development given the number of mature trees and hedges present within the LCT. In addition the prominence of the Development would reduce with distance and would depend on the angle of view towards the sloping panels. The solar panels would be most prominent when seen from the west, south and east.

Table 7: Nature of Change to Settled Plateau Farmland Slopes LCT

| Character Criteria | Nature of Change |
|--|---|
| Topography | Other than relatively minor excavations during construction the Development would have little effect on the topography and the <i>'undulating, sloping landform'</i> of the Site would be preserved. |
| Scale (landform and component landscape features) | <p>During construction some areas of grass would be removed. During operation, the solar panels would reflect the scale of the existing medium sized field pattern, collectively forming similar sized blocks. Although raised, the solar panels would be seen as a flat and relatively low-lying element, and there would be a sufficient buffer between panels and field boundaries for the scale of fields to remain apparent.</p> <p>The mitigation planting would reflect and enhance the existing species and would be typical of the hedgerow species listed for the LCT - <i>'Hedgerow tree cover is predominantly oak, with some ash...'</i> <i>'irregular hedged field pattern'</i>, <i>'hedgerow oak and ash trees'</i> and <i>'broadleaved and conifer woodlands'</i>. The areas of <i>'small streams and small ponds located in fields, often with trees and scrub'</i> located within central and northern parts of the Site would be preserved with stand-offs from built development.</p> |
| Landscape pattern and complexity (including sense of time-depth) | <p>During construction the complexity of the Site would be increased significantly.</p> <p>During operation the solar panels would reflect and enhance the existing scale of the <i>'irregular hedged field pattern'</i> with hedgerow trees, although it would homogenise the colour and texture of the existing pastoral fields within the Site, replacing the visible grassland with man-made structures. The replanting of missing areas of field boundary hedging and new boundary trees would strengthen the field pattern within the Site. The <i>'small streams and field ponds'</i> of the Site would be retained with suitable stand-offs from built development. The grass below the solar panels would allow the continued land use of <i>'low intensity pastoral farming'</i> land use, albeit less intensely. The proposed tree and scrub planting in the northern part of the Site near the substation would reflect the key characteristic <i>'Locally, small woodlands, mostly broadleaved in nature but sometimes with some conifer element, have a localised influence.'</i></p> |
| Perceptual qualities | During operation the presence of machinery and people would change the rural and tranquil character of the Site although the limited presence of people or movement generally would limit effects to an extent. |
| Skyline character and visual prominence | <p>The Development would have a visual influence over surrounding areas of the LCT although it would be most prominent in views during the construction period and when the front faces of the solar panels are visible, particularly from the south and east. Here the panels would be seen in contrasting tones and colour with the surrounding vegetation.</p> <p>The Development would not form skyline views or have high visual prominence within the LCT when considered within the study area.</p> |
| Visual sensitivities and intervisibility | Visibility to the Development from within the LCT would be limited to relatively short distance views given the topography of the study area, and presence of largely in-tact hedges and large numbers of hedge trees in central and southern parts of the Site, as well as groups of trees located beyond the Site. The Development would have a visual influence over surrounding areas of the LCT during construction and operation within approximately 500m to the west, north and east, and approximately 1km to the south-east. The Development would also affect views within the Site |

| | |
|--|---|
| | <p>although the proposed structures would be most prominent at close quarters given the screening by field boundaries. Effects on views within 500m of the Site would tend to diminish with the growth and management of hedges and new trees over time as demonstrated by the photomontages or photowires at Viewpoints 1-4.</p> <p>The solar panels would introduce repeated man-made elements into what is currently a largely agricultural and little-developed landscape.</p> <p>The mitigation planting of hedge trees and the management of the hedgerows would continue to 'limit views across the landscape' in keeping with the key visual characteristic.</p> <p>The Development would have relatively low intervisibility with the landscape of Settled Plateau Farmlands LCT and Dissected Sandstone Cloughs and Valleys LCT with very little intervisibility with the remaining LCTs within the study area.</p> |
|--|---|

The geographical extent over which physical changes would be experienced would be relatively localised affecting up to 84Ha and limited to the Site within the LCT which spans the 3.5km radius study area. Perceptual changes would occur within a relatively small percentage of the LCT represented in the study area, within the Site and up to approximately 500m to the west, north and east, and up to 1km to the south-east within the LCT. The solar panels would introduce repeated man-made elements into what is currently a largely agricultural and little-developed landscape and this effect would be adverse.

The Development would be additional to the existing solar farm at Lower Newton Farm already located within the LCT 2.5km to the east, and the increase the level of existing solar farm development within the LCT of the study area would cause 'solar farms' to become a key characteristic of the LCT that is represented within the study area.

The landscape and ecological mitigation including the planting and maintaining of hedges, hedge trees, tree groups and native species neutral grassland, and buffers to ponds and water courses would contribute positively to the landscape elements and key characteristics which have been identified to increase landscape quality and to preserve characteristic landscape features according to guidance¹⁶.

During construction the magnitude of change within the Site would be High, and it would be Low when assessed within the study area as a whole. During Year 1 and Year 15 the magnitude of change within the Site would be High, and Medium when assessed within the study area as a whole due to the addition of solar farms to the key characteristics of the LCT.

Assessed at site level effects on landscape character during construction, Year 1 and Year 15 would be Major/Moderate. Assessed within the study area effects on landscape character during construction would be Moderate/Minor. At Year 1 and Year 15 effects would be Moderate and significant.

The strengthening of the characteristic trees, hedges and other native species would be a positive effect. Overall, it is considered that effects would be adverse primarily due to the perceptual character change from a largely undeveloped pastoral landscape to one characterised by man-made elements; and the addition the formation of the key characteristic of 'solar farms' within the LCT.

6.2.2 Settled Plateau Farmlands LCT

Settled Plateau Farmlands LCT includes the south-eastern portion of the study area and therefore has the potential to be indirectly affected by the Development. Effects are considered within the Site and the 3.5km study area.

The visual sensitivity of the Settled Plateau Farmlands LCT to the Development is judged to be Medium to High.

Nature of Change

The Development would not directly affect the LCT and visual changes have been set out within Table 8.

The Screening Effects ZTV in Figure 5 indicates that there would be some visibility to the Development from the lower slopes of the LCT particularly. Actual visibility would tend to be very limited and to small proportions of the Development given the number of mature trees and hedges present within the LCT. In addition the prominence of the Development would reduce with distance although the front faces of the solar panels would be seen, if within view from these locations. Views to the southern part of the Development including the construction of the new road access and the solar panels location in F19, and

possibly F17-18, would occur at distances of over 600m the LCT from Creswell Road near The Limes although the Development would be screened or difficult to decipher in most views further east. The trees and hedges located within the Site itself would soften any views to the solar panels from locations further to the east so that it would become imperceptible, particularly during periods of foliage. It is likely that there would also be some heavily screened views to the southern part of the Site from the LCT from the ridge line at Blakelow but it would not be prominent. The existing solar farm at Lower Newton Farm would be considerably more prominent in views from the LCT.

Table 8: Nature of Change Settled Plateau Farmlands LCT

| Character Criteria | Nature of Change |
|--|---|
| Perceptual qualities | The distance and the limited extent of the Development visible would have very limited effects on the perceptual qualities of the LCT. |
| Skyline character and visual prominence | The Development would not form skyline views or have high visual prominence within the LCT when considered in isolated locations or when considered within the study area as a whole. |
| Visual sensitivities and intervisibility | Visibility to the Development from within the LCT would be very limited to short isolated locations mostly 600m – 2km to the south east of the Site. However from these locations it would not be prominent despite the front faces of the solar panels being in view due to the level of screening within the Site and with intervening landscape. Whilst the LCT is characterised by some open views, these tend to be focussed on the slopes to the north. |

Visual changes would occur up to 2km to the south-east the Site within the LCT but the extent of the Development that is visible would cause changes to be small. The solar panels would tend to face the LCT in these views which would potentially increase prominence but construction processes would be difficult to see.

During construction, Year 1 and Year 15 the magnitude of change to the LCT would be Negligible. During construction, Year 1 and Year 15 effects on the LCT would be Minor to Minor/Negligible.

6.2.3 Dissected Sandstone Cloughs and Valleys LCT

Dissected Sandstone Cloughs and Valleys LCT includes the north-eastern portion of the study area and therefore has the potential to be indirectly affected by the Development. Effects are considered within the 3.5km study area.

The visual sensitivity of the Settled Plateau Farmlands LCT to the Development is judged to be Medium.

Nature of Change

The Screening Effects ZTV in Figure 5 indicates that there would be some fragmented visibility to the Development from much of the LCT represented in the study area. Actual visibility would tend to be more limited due to the number of trees within the intervening landscape. However the LCT is relatively elevated and there are some long panoramic views across the Blithe Valley towards the Site. These are represented by Viewpoint 9 at Draycott Cross. The Site is currently well-wooded with occasional areas of the paler greens of fields and seen in the context of occasional built development including Fulford and The Potteries. Parts of central and western parts of the Development would be visible with a broken pattern of visibility elsewhere. Some construction activities would be visible although primarily through the change of green pasture to the browns of soil, and the use of lights. These changes are typical of the surrounding landscape however. From this distance the visible parts of the Site would register as a fairly large building Site. Seen from this direction the back side of the solar panels would face the viewer, presenting a less prominent side which would further reduce prominence. At Year 15 the growth of trees and hedges would reduce visibility to an imperceptible degree given the views to sloping ground. Generally the Development would be more visible during periods of foliage loss although trees and hedges would continue to soften and partially screen parts of the Site.

Table 9: Nature of Change Dissected Sandstone Cloughs and Valleys LCT

| Character Criteria | Nature of Change |
|--------------------|------------------|
|--------------------|------------------|

| | |
|--|---|
| Perceptual qualities | Whilst the Development would potentially be visible affecting moderate parts of the Blithe Valley, it would be seen within wider views which contain scattered areas of development. |
| Skyline character and visual prominence | The Development would not form skyline views and the fragmented visibility and views to the back sides of the solar panels would diminish prominence when considered in isolated locations or when considered within the study area as a whole. |
| Visual sensitivities and intervisibility | Intervisibility is relatively high given the elevated position of the LCT and the Development. Distance, limited prominence and the presence of other built development within the wider view would reduce visual sensitivity. |

Visual changes would occur up to 3.5km to the north the Site within the LCT but the lack of prominence of the Development would limit change.

During construction, Year 1 and Year 15 the magnitude of change to the LCT would be Low to Negligible. During construction, Year 1 and Year 15 effects on the LCT would be Moderate/Minor to Minor/Negligible.

6.2.4 Sandstone Hills and Heaths LCT

Sandstone Hills and Heaths LCT includes the south-western portion of the study area and therefore has the potential to be indirectly affected by the Development. Effects are considered within the Site and the 3.5km study area.

The visual sensitivity of the Settled Plateau Farmlands LCT to the Development is judged to be Low-Medium.

Nature of Change

The Development would not directly affect the LCT and visual changes have been set out within Table 10.

The Screening Effects ZTV in Figure 5 indicates that there would be some intermittent visibility to the Development from the east-facing and elevated slopes located east of Hilderstone Road within 2km. Actual visibility would tend to be more limited due to trees and hedges and, where visible the upper-most areas of solar panels located in F13 and F15 may be visible as they drop beyond the ridge on which the Site sits. Distant views to the north would tend to form the back-drop. It is possible that the Lower Newton Farm Solar Farm would be visible cumulatively although neither would be prominent. The deeper valleys in this part of the LCT would be screened from view. Other locations within the LCT are located within the Trent Valley and would be fully screened from view.

Table 10: Nature of Change Sandstone Hills and Heaths LCT

| Character Criteria | Nature of Change |
|--|---|
| Perceptual qualities | The small extent of the Development visible would have very limited effects on the perceptual qualities of the LCT. |
| Skyline character and visual prominence | The Development would not form skyline views or have high visual prominence within the LCT when considered in isolated locations or when considered within the study area as a whole. |
| Visual sensitivities and intervisibility | Visibility to the Development from within the LCT would be very limited to short isolated locations mostly 1-2km to the south-west and west of the Site. However from these locations it is not likely to be prominent despite the front faces of the solar panels being in view due to the level of screening within the intervening landscape, and over time the Site, and the ground of the Site falling away from the viewer. |

Visual changes would occur 1-2km to the south-west and west of the Site within the LCT but the extent of the Development that is visible would cause changes to the area of the LCT represented within the study area to be small. The solar panels would tend to face the LCT in these views which would potentially increase prominence to a degree but construction processes would be difficult to see.

During construction and Year 1 the magnitude of change to the LCT would be Low. During Year 15 the magnitude of change to the LCT would be Negligible. During construction and Year 1 effects on the LCT would be Moderate/Minor to Minor. At Year 15 effects on the LCT would be Minor to Minor/Negligible.

6.3 Designations

Landscape and heritage designations contribute to the value attributed to landscape character and have been accounted for in the sensitivity of LCTs assessed above. Visual effects on landscape designations are assessed in the next section.

There would be no direct effects on landscape designations other than West Midlands Green Belt which is assessed below.

6.3.1 Effects on the Green Belt

This section considers the construction and operational effects of the Development on the Green Belt. The Site and the central and western parts of the study area are designated as part of the West Midlands Green Belt which is protected by national and local policy.

The fundamental aim of Green Belt is to prevent urban sprawl by keeping land permanently open and the essential characteristics of Green Belt are their openness and their permanence.

An assessment of the effects of the Development on the openness of the Green Belt has been made at the assessment Viewpoints which are represented by the Visualisations 1-9.

Table 11: Effects of the Development on the Openness of the Green Belt

| Viewpoint | Nature of Change |
|-------------------------------------|---|
| 1 Footpath between Site and Fulford | The viewpoint is located within 65m of the nearest solar panels and the presence of construction activities and the built development within much of the 360 degree view would significantly change the rural character of the view. It would reduce a sense of openness by screening longer views to the Blithe Valley. Mitigation through hedge planting would screen parts of the built development but not reduce openness further. The solar panels and later the hedges would screen longer views to the north and reduce a sense of openness. |
| 2 Saverley Green Road | The primary changes to the view would occur as the result of the loss of hedgerow and construction of the access road into the Site and fencing. These would not be out of character of typical development located within Green Belt however. The views to the solar panels which would be some distance from the viewer would moderately increase the level of built development within the Green Belt in this location. The Development would moderately change the rural character of the view. |
| 3 Little Gorsty Birch | The construction processes and Development within northern and central parts of the Site would be clearly visible at close quarters and would introduce continuous built development into a rural landscape. It would extend the level of built development present in the view affecting a 140 degrees of the view, and change the character of the view although the rural landscape surrounding the Site would remain agricultural and rural in character. |
| 4 Footpath to north of the Site | Parts of the Development would be visible in moderately close proximity although much of it would be screened by intervening trees and hedges. Whilst the presence of the Development would increase the level of built structures into a rural view, it would not dominate it or affect large parts of the view which would remain essentially rural in character. |
| 5 Fulford Lane, Stallington | Small parts of the Development would be visible during operation, becoming slightly more visible during periods of foliage loss but overall lacking prominence. The Development would not significantly change the rural character of the view. |
| 6 Long Lane near Fulford | Small parts of the Development and construction close to the south-western boundary of the Site would be visible, becoming slightly more visible during periods of foliage loss. The Development would not significantly change the rural character of the view. Effects on the Green Belt would be negligible. |
| 7 North end of Cresswell | The changes to the landscape would not be prominent as the small parts of the Site that are visible are interspersed by trees. The Development would not significantly change the rural character of the view. Effects on the Green Belt would be negligible. |
| 8 Totmonslow | The changes to the landscape would be difficult to see and the Development would not significantly change the rural character of the view. Visual effects on the Green Belt would be negligible. |

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| 9 Draycott Cross | South-western parts of the Site are clearly visible from this location. During construction the visible area would be perceived as a large-scale building site within the wooded landscape. During operation the rear of the solar panels would be visible although they would not be prominent given their dark visual characteristics and the distance of the Viewpoint. The Development would be seen as an area separated from built development visible to the north-west although it would incrementally increase the level of built development located within what is seen as loosely wooded countryside. The Development would not significantly change the rural character of the view. Effects on the Green Belt would be negligible. |
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The following table assesses the effects of the Development on the purposes of the Green Belt.

Table 12: Effects of the Development on the Purposes of the Green Belt

| Purpose of the Green Belt | Nature of Change |
|--|---|
| To check the unrestricted sprawl of large built-up areas | The Development is separated from the large built-up area of Stoke-on-Trent and its nearest suburb (Blythe) by open countryside over an area of 550m and this separation is reinforced by the embankments and tree belt associated with the A50. |
| To prevent neighbouring towns merging into one another | The Development does not cause the towns of Cheadle, Stone or Blythe Bridge to merge physically or visually. |
| To assist in safeguarding the countryside from encroachment | <p>The built structures of the Development would affect 69Ha of Green Belt affecting a significant area of largely undeveloped countryside. The solar panels would affected the largest proportion of the land although they would remain located in areas of pasture. They would also be interspersed by existing field boundaries which are characterised by hedges and mature trees. These would be preserved and enhanced.</p> <p>The solar farm would encroach on the countryside to an extent although this would be partially mitigated by the preservation and enhancement of field boundary hedges and trees, woodland, ponds, scrub, enhanced grassland and grazed grass under the solar panels themselves.</p> |
| To preserve the setting and special character of historic towns | The LVIA has found that the Development would not significantly affect the setting and special character of Fulford and its Conservation Area due to the separation formed by the ridge line and trees located between the village and the Site. |
| To assist in urban regeneration, by encouraging the recycling of derelict and other urban land | The Development would be located on a green field site and does not fulfil this purpose. |

The tables above assess the potential impacts of the proposal on the 'openness' of the Green Belt within study area, in the context the five purposes for designation.

The solar farm would have some effects on the third purpose of the Green Belt, 'To assist in safeguarding the countryside from encroachment'. It would encroach on the countryside due to the large area of countryside that would be affected primarily by strings of solar panels. This would be partially mitigated however by the preservation and enhancement of field boundary hedges and trees, woodland, ponds, scrub, enhanced grassland and grazed grass under the solar panels themselves. The impacts of encroachment would occur physically across much of the Site, and be apparent visually from a number of locations close to the Site within 500m to the west, north and east; and up to 750m to the south-east where the front face of the panels would be prominent at time, reflecting the pale tones of clouds. Whilst areas of solar panels would be theoretically visible from some parts of the countryside located to the north-east side of the River Blithe at distances of up to 8km, the orientation of the panels away from the viewer would significantly reduce prominence in these locations. At no location would the total area of the Development be visible and areas of visible Development would be visually interrupted by significant numbers of trees located and retained on the Site.

The Development would not affect the remaining four purposes of the Green Belt.

Green Belt is a local designation and is protected by Staffordshire and national planning policy. It is considered that it has a Medium sensitivity to solar development. The magnitude of change to the Green Belt as a designation would be Low and the effect would be Moderate/Minor.

Section 7.0: Assessment of Visual Effects

The construction and operational period of the Development would cause changes to the fabric of the Site which would be visible within and beyond the Site in places, with potential for visual effects on surrounding visual receptors.

This section addresses the changes in the composition of existing views of the landscape arising from the Development during its operational phase, and the effects this would have on the visual receptors (people) who experience those views.

As with landscape effects described in the previous section, judgements concerning levels of effect on views and visual amenity take into account the ‘sensitivity’ of each receptor and the ‘magnitude’ of change that arises from the Development during operation. This process is described in more detail in Appendix 1 (Methodology) of the LVIA. The duration and reversibility of all visual effects are assumed to be ‘long-term’ but ‘reversible’ unless otherwise stated. All effects are also assumed to be ‘adverse’ unless otherwise stated.

As also noted in the previous section, visual effects are assessed at construction, the year of completion (taken to be Year 1) and at 15 years (Year 15) following completion of the construction process in order to assess changes over time including the effectiveness of mitigation planting at reducing levels of effects on views. In this case, established vegetation on and immediately adjacent to the boundaries of the Site already provides a degree of visual containment.

The assessment has also taken seasonality into account when considering the effectiveness of existing and proposed vegetation at screening the Development. In most instances the screening vegetation tends to comprise the woodland, hedge trees and hedges located within the Site and surrounding area. These often create a dense visual barrier but during periods of foliage loss there are some heavily filtered views through them, and the hedges tend to be maintained at heights of less than 2m. They are also gappy in places. Where applicable, notable differences between levels of effects in summer and winter are noted. Judgements about levels of effect recorded in the following viewpoint assessment and Tables 13-17 below are, based on a worst-case winter visibility when screening by deciduous vegetation is least effective.

The following assessment considers effects in relation to properties and settlements, tourist and recreational destinations including tourist routes as well as main transport routes as identified in section 4.

7.1 Visual Effects on Views from Residential Properties

The effect of the Development on local residents requires particular attention because they would tend to experience the Development for longer periods of time than other receptors.

Whilst individual or specific observations are made below concerning views or potential views from properties in the direction of the Development, a ‘summation’ is offered based on an opinion ‘in the round’ i.e. taking all relevant factors into account. This could include potential views from the property itself as well as from the surrounding amenity ground, the access/egress points and the immediately adjacent highway. Effects from views from ground floor windows and external areas are assessed. The assessment is an informed estimate as the properties themselves have not been accessed.

A total of 35 individual or groups of properties were identified within 1km of the Site. These are shown on Figure 8, where they are labelled R1, R2, etc. Each property is considered in Table 13 below based on a desktop assessment in conjunction with a site visit to the closest public location in the vicinity of each property.

Occupants of residential properties are judged to be of High sensitivity and susceptibility as they are static receptors whose enjoyment of their property is highly susceptible to change in the view and whose views are highly valued.

Table 13: Visual Effects on Residential Properties

| Property | Description of Effect |
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| R1 Woodnest | Woodnest is a two storey detached dwelling located 465m north-west of the Site. The property has a slightly elevated position and there are some long and open views to the east and south beyond the garden it is likely that construction activities, the solar panels located in some northern and central parts of the Site would be visible, interspersed by |

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| | <p>trees and field boundaries. The woodland blocks close to Little Leacroft Farm would provide some screening.</p> <p>At Year 15 mitigation planting would reduce visibility further.</p> <p>The proposed built development would generally be more visible in winter.</p> <p>Magnitude of change (Construction): Low. Level of effect: Moderate, not significant.</p> <p>Magnitude of change (Year 1): Low. Level of effect: Moderate, not significant.</p> <p>Magnitude of change (Year 15): Low. Level of effect: Moderate to Minor.</p> |
| R2 The Uplands | <p>The Uplands a two storey detached dwelling located 380m north-west of the Site within large and wooded grounds. The house is not visible from public locations.</p> <p>The property has a slightly elevated position and there are likely to be some long views to the hills south of Stillington to the south. However high levels of shrubs and trees within the grounds are likely to screen all or most views to the Site.</p> <p>The proposed built development would generally be more visible in winter, if visible.</p> <p>Magnitude of change (Construction): Negligible to none. Level of effect: Minor to none.</p> <p>Magnitude of change (Year 1): Negligible to none. Level of effect: Minor to none.</p> <p>Magnitude of change (Year 15): Negligible to none. Level of effect: Minor to none.</p> |
| R3 Higher Gorsty Birch Farm | <p>Higher Gorsty Birch Farm is a two storey white painted detached dwelling located 260m north-west of the Site set amongst farm buildings. Ground floor views would be partially screened by intervening buildings and vegetation.</p> <p>The property has a slightly elevated position and there would be some views to the northern part of the Site located close to Little Leacroft Farm, and the rising ground to the south including central parts of the Site. The trees within the Site would screen or soften significant parts of the Development but the character of the view would change, particularly in winter.</p> <p>Mitigation planting (particularly on the west boundaries of F6 and F10 would help screen views to the solar panels.</p> <p>The proposed built development would generally be more visible in winter.</p> <p>Magnitude of change (Construction): Low. Level of effect: Moderate, not significant.</p> <p>Magnitude of change (Year 1): Low. Level of effect: Moderate, not significant.</p> <p>Magnitude of change (Year 15): Negligible. Level of effect: Minor.</p> |
| R4 Lower Gorsty Birch | <p>Lower Gorsty Birch Farm is a two storey brick detached dwelling located less than 50m from the northern boundary of the Site.</p> <p>The property has a slightly elevated position and there would be some close views from front windows to the Development in the northern part of the Site, and some mid distance views to the central parts of the Site around and beyond Little Leacroft Farm. Movement of vehicles and details would be clearly visible during construction and any lighting would be prominent although lights are currently visible at Little Leacroft Farm. It is also likely that the substation would be visible in the view. Views are represented by Viewpoint 3. The trees within the Site would screen or soften significant parts of the Development but the character of the view would be changed, particularly in winter, affecting a large horizontal viewsplay. The lights at the substation may be visible.</p> <p>Mitigation planting (particularly in F1, F3 and F4) would help screen views to the solar panels, telecommunication mast and substation over time.</p> <p>The proposed built development would generally be more visible in winter.</p> <p>Magnitude of change (Construction): Medium. Level of effect: <u>Major/Moderate</u> and significant.</p> <p>Magnitude of change (Year 1): Medium to Low. Level of effect: <u>Moderate</u> and significant.</p> <p>Magnitude of change (Year 15): Low to Negligible. Level of effect: Moderate/Minor.</p> |
| R5 Logobi | <p>Logobi is a brick detached dwelling located less than 50m from the northern boundary of the Site.</p> <p>The property has a slightly elevated position and there would be some close views to the Development in the northern part of the Site, and some mid distance views to the central parts of the Site around and beyond Little Leacroft Farm from some small side windows. Movement of vehicles and details would be clearly visible during construction and any</p> |

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| | <p>lighting would be prominent although lights are currently visible at Little Leacroft Farm. It is also likely that the substation would be visible in the view. Views are represented by Viewpoint 3. The trees within the Site would screen or soften significant parts of the Development but the character of the view would change, particularly in winter, affecting a large horizontal viewsplay. The lights at the substation may be visible.</p> <p>Mitigation planting (particularly in F1, F3 and F4) would help screen views to the solar panels, telecommunication mast and substation over time.</p> <p>The proposed built development would generally be more visible in winter.</p> <p>Magnitude of change (Construction): Medium. Level of effect: <u>Major/Moderate</u> and significant.</p> <p>Magnitude of change (Year 1): Medium to Low. Level of effect: <u>Moderate</u> and significant.</p> <p>Magnitude of change (Year 15): Low to Negligible. Level of effect: Moderate/Minor.</p> |
| R6 Little Leacroft Farm (financially involved) | <p>Little Leacroft Farm is a two storey brick detached dwelling located adjacent to the north-west boundary of the Site. Most of the windows are on the east façade. Barns are located to its west and north sides but there are some open views to the east and south from the house.</p> <p>Movement of vehicles and details would be clearly visible during construction and any lighting would be prominent although lights are currently visible at the farm itself.</p> <p>It is also likely that the HV converter and the solar panels located in F5 would be screened but some panels in F4, F6 and further to the south would be clearly visible at relatively close range at oblique angles. There are likely to be some views to the solar panels located within F1-5 at close range.</p> <p>Mitigation planting (particularly in F4 and F6) would help screen views to the solar panels over time.</p> <p>The proposed built development would generally be more visible in winter.</p> <p>Magnitude of change (Construction): Low to Moderate. Level of effect: <u>Moderate</u> to <u>Major/Moderate</u> and significant.</p> <p>Magnitude of change (Year 1): Low to Moderate. Level of effect: <u>Moderate</u> to <u>Major/Moderate</u> and significant.</p> <p>Magnitude of change (Year 15): Low. Level of effect: Moderate not significant.</p> |
| R7 Woodlands | <p>A two storey brick built farm 550m to the north-east of the Site, with a series of agricultural barns which are likely to screen all views to the Site. There would be no change to the views.</p> |
| R8 | <p>A single storey brick built building 80m to the east of the Site, surrounded by a series of agricultural barns which, in combination with nearby trees, are likely to screen all views to the Site. There would be no change to the views.</p> |
| R9 Leacroft View | <p>The two storey brick building 140m east of the Site with some open views to the south-west.</p> <p>Agricultural barns in combination with nearby trees, are likely to screen all views to the Site. There would be no change to the views.</p> |
| R10 The Hollows Farm | <p>The Hollows Farm is a two storey farm house located 640m east of the Site. It is likely that there are some view across the fields to the south-west of the property towards the Site, but trees located in intervening field boundaries are likely to screen views to the Development. Strengthening of the eastern boundaries of F12-14 is likely to reduce the chances of visibility further.</p> <p>The proposed built development is more likely to be visible, if still heavily screened, in winter.</p> <p>Magnitude of change (Construction): Negligible. Level of effect: Minor.</p> <p>Magnitude of change (Year 1): Negligible. Level of effect: Minor.</p> <p>Magnitude of change (Year 15): Negligible. Level of effect: Minor.</p> |
| R11 Saverley Green Farm | <p>Saverley Green Farm is a two storey farm house located 530m east of the Site with a series of agricultural barns which, in combination with nearby trees, are likely to screen all views to the Site. There would be no change to views.</p> |
| R12 Saverley House Farm | <p>Saverley House Farm includes a group of residential properties located 780m east of the Site. Views to the Development are likely to be totally screened by the buildings and</p> |

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| | trees of the adjacent properties, in addition to the trees in the intervening fields. There would be no change to views. |
| R13 Saverley House | Saverley House is a two storey house in large grounds located 600m east of the Site. Views to the Development are likely to be totally screened by the trees within the grounds of the house, in addition to the trees in the intervening fields. There would be no change to views. |
| R14 Rookery Cottage | Rockery Cottage, located on Sandon Road 900m east of the Site, is a two storey house with some open views towards the Site. Views to the Development are likely to be totally or mostly screened by the trees within the Site and the intervening landscape. Magnitude of change (Construction): Negligible. Level of effect: Negligible Magnitude of change (Year 1): Negligible. Level of effect: Negligible. Magnitude of change (Year 15): Negligible. Level of effect: Negligible. |
| R15 | The single storey dwelling is located on Sandon Road 800m east of the Site. Views to the Development are likely to be totally screened by the boundary hedge and trees within the Site and the intervening landscape. There would be no change to views. |
| R16 | <p>The two storey, detached house located on Saverley Green Road has open outlooks to the north-west and towards the Site. It is located adjacent to the Site and it is likely that there would be some filtered views beyond its southern and western garden boundaries to construction activities and the solar development in F17 and F19, particularly from upstairs windows. The solar panels would be made more prominent by the angle of view to the sloping surfaces. There would be some clear views to the access road construction and use by vehicles during that period.</p> <p>The set back of the solar panels (approximately 200m from the building) and the mitigation hedge and tree planting on the south-eastern sides of F17 and F19 would reduce visual effects over time.</p> <p>The proposed built development would generally be more visible in winter.</p> <p>Magnitude of change (Construction): Low. Level of effect: <u>Moderate</u> and significant.</p> <p>Magnitude of change (Year 1): Low. Level of effect: Moderate and not significant.</p> <p>Magnitude of change (Year 15): Negligible. Level of effect: Minor.</p> |
| R17 Meadow View House | <p>Meadow View House is a detached, two storey house located 570m to the south-east of the Site on Cresswell Road and 750m from the closest visible solar panels. Current views towards the Site form part of the rural outlook of the property to the north. It is likely that some of the solar panels located in F19 would be visible, albeit partially filtered by the trees located on ground that falls away on the west boundary of the property, and on Saverley Green Road. Winter foliage loss would increase visibility to the solar panels which would be seen sloping towards the viewer and often comparatively pale in tone. The mitigation planting proposed on the southern side of the PV panels in F19 would help screen views to them although the panels located on higher ground within the fields and, potentially in F17 and F18 may also remain partially visible, particularly in winter. The construction of the road entrance and operations in F19 would be visible. At this distance the changes would affect a relatively small part of the wider view.</p> <p>Magnitude of change (Construction): Low. Level of effect: Moderate, not significant.</p> <p>Magnitude of change (Year 1): Low. Level of effect: Moderate, not significant.</p> <p>Magnitude of change (Year 15): Low to Negligible. Level of effect: Moderate to Minor, not significant.</p> |
| R18 Limes Farm | <p>There appear to be two residential properties at Limes Farm located 700m to the south-west of the Site on Cresswell Road. Most if not all of the Development would be screened by the house and trees located around Meadow View House although visibility may slightly increase in winter, with possible visibility to the panels located in F19, when reflecting pale tones. Construction processes are unlikely to be easy to see.</p> <p>Magnitude of change (Construction): Negligible to no change. Level of effect: Negligible.</p> <p>Magnitude of change (Year 1): Negligible to no change. Level of effect: Negligible to Minor.</p> <p>Magnitude of change (Year 15): Level of effect: Negligible to no change. Level of effect: Negligible to Minor.</p> |
| R19 The Morillows | The Morillows is a two storey detached house located 780m south-east of the Site on Cresswell Road. There are some open views across the rolling countryside towards the Site. Some of the solar panels located in F19 are likely to be partially visible, contrasting |

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| | <p>in tone with the surrounding landscape in some lighting conditions. Construction of the Development including the road access on Saverley Green Road could also be visible although not prominent. The changes would affect a small part of the view. Visibility would increase during foliage loss and reduce as the mitigation planting on the south side of the solar panels matured.</p> <p>Magnitude of change (Construction): Negligible. Level of effect: Minor</p> <p>Magnitude of change (Year 1): Negligible. Level of effect: Minor.</p> <p>Magnitude of change (Year 15): Negligible. Level of effect: Negligible to Minor.</p> |
| R20 The Hollies Farm | The Hollies m is a detached house located on Cresswell Green Road 680m to the south of the Site. It is likely that the Development would be fully screened by intervening landform and trees and there would be no change to views. |
| R21 Mount Pleasant Farm | Mount Pleasant Farm is a two storey dwelling located 870m to the south of the Development on Cresswell Road. Intervening trees and landform would fully screen the development and there would be no change to views. |
| R22 Willow Bank Farm | Willow Bank Farm is a two storey dwelling located 600m to the south of the Site on Cresswell Road. Intervening trees and landform would fully screen the development and there would be no change to views. |
| R23 Long Lane Head Farmhouse | <p>Long Lane Head Farmhouse is two storey and is located 800m south of the Site on Long Lane. It is located close to Viewpoint 6 where there could be very small changes to views caused by the movement of vehicles and planting of the boundary hedge during the construction process in F15, visible in silhouette against the sky, plus there may be very small glimpse views to solar panels in F13. This is likely to contribute an imperceptible change to the view however. Visibility may become clearer during periods of foliage loss and are likely to be greater from upper floor windows.</p> <p>Magnitude of change (Year 1): Negligible. Level of effect: Minor/Negligible</p> <p>Magnitude of change (Year 1): Negligible. Level of effect: Minor/Negligible.</p> <p>Magnitude of change (Year 15): Negligible. Level of effect: Negligible.</p> |
| R24 The Birches | <p>The Birches is a two storey detached property located 800m south of the Site on Long Lane. Views towards the Site are largely or fully screened by vegetation located on Long Lane.</p> <p>It is located close to Viewpoint 6 where there could be very small changes to views during the construction process in F15, visible in silhouette against the sky, and there may be very small glimpse views to solar panels in F13. This is likely to contribute an imperceptible change to any view however. Visibility may become clearer during periods of foliage loss and are likely to be greater from upper floor windows.</p> <p>Magnitude of change (Year 1): Negligible. Level of effect: Minor/Negligible</p> <p>Magnitude of change (Year 1): Negligible. Level of effect: Minor/Negligible.</p> <p>Magnitude of change (Year 15): Negligible. Level of effect: Negligible.</p> |
| R25 Greenstych Farm | <p>Greenstych Farm is a two storey detached property located 930m south of the Site on Long Lane. There are some open views across countryside towards the Site. These are likely to be at least partially represented by the nearby Viewpoint 6 where there could be very small changes to views during the construction process in F15, visible in silhouette against the sky, and there may be very small glimpse views to solar panels in F13. This is likely to contribute an imperceptible change to any view however. Visibility may become clearer during periods of foliage loss and are likely to be greater from upper floor windows.</p> <p>Magnitude of change (Construction): Negligible. Level of effect: Negligible/Minor.</p> <p>Magnitude of change (Year 1): Negligible. Level of effect: Negligible/Minor</p> <p>Magnitude of change (Year 15): No change to Negligible. Level of effect: No change to Negligible.</p> |
| R26 Field View | Field View is a bungalow located on Long Lane 740m to the south-west of the Site. It is likely that all views to the Site are screened by the hedge located on Long Lane and that there would be no change to views. |
| R27 Dene Hollow | Dene Hollow is a bungalow located 640m to the south-west of the Site on Long Lane. It is likely that all views to the Site are screened by the hedge located on Long Lane and that there would be no change to views. |

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| R28 Fulford Hall | Fulford Hall is a two and a half storey dwelling located 300m south-west of the Site. It is not clear if it is inhabited. Any views towards the Site are likely to be screened by intervening barns and land-form and it is likely that there would be no change to views. |
| R29 Crofters Cottage (financially involved) | Crofters Cottage is a two storey dwelling located 240m south-west of the Site. Any views towards the Site are likely to be screened by intervening barns and land-form and it is likely that there would be no change to views. |
| R30 The Church Cottage | The Church Cottage is a two storey dwelling located 370m south-west of the Site. It is not clear if it is inhabited. Any views towards the Site are likely to be screened by intervening trees and it is likely that there would be no change to views. |
| R31 The Barn | The Barn is a one and a half storey dwelling located 420m south-west of the Site. Views towards the Site are likely to be screened by intervening land-form and it is likely that there would be no change to views. |
| R32 Manor Barn | Manor Barn is a long, converted Barn located 450 m south-west of the Site and it may have residential or commercial uses. Views towards the Site are likely to be screened by intervening buildings and land-form and it is likely that there would be no change to views. |
| R33 Fulford Manor | Fulford manor is a two and a half storey dwelling located 380m south-west of the Site. Views towards the Site are likely to be screened by intervening land-form and it is likely that there would be no change to views. |
| R34 Dale Farm | Dale Farm is a two storey farm house located 850m south-west of the Site. Views to the Development are likely to be totally screened by intervening landform and vegetation and there would be no change to views. |
| R35 Baker's Cottage | <p>Baker's Cottage is located 850m west of the Site in an elevated position where there are likely to be some long views. Although trees located to the east of the house would screen most views to the Site it is possible that there could be some views to the construction and operational phases of the Development located in F13, F15 and possibly F18. The sides and backs of the panels would be visible and these would be of limited prominence. However should this be visible, distance and the small horizontal view splay affected would cause any changes to be small. Mitigation planting in those fields would further reduce visibility over time.</p> <p>Magnitude of change (Year 1): Negligible to Low. Level of effect: Negligible to Minor.</p> <p>Magnitude of change (Year 1): Negligible to Low. Level of effect: Negligible to Minor.</p> <p>Magnitude of change (Year 15): Negligible. Level of effect: Negligible to Negligible/Minor.</p> |

At no residential property would visual effects cause an overbearing impact, visual dominance or a loss of outlook.

7.2 Visual Effects on Views from Settlements

The settlements identified in Section 4 of the baseline conditions as having potential visibility to the Development are considered in Table 14.

Occupiers of properties and their environs within settlements are judged to be of High sensitivity. They include static and regularly used receptor locations where views are highly valued, and where their enjoyment of property and environs is likely to be highly susceptible to change in their views.

The greatest effects likely to occur at any one location within each settlement have been identified in addition to an assessment of effects across the settlement considered as a whole.

Table 14: Visual Effects on Settlements

| Settlement | Description of Effect |
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| Fulford | <p>Fulford village is located 280m to the south of the Site.</p> <p>The village has a historic core which is marked by the Conservation Area which includes St Nicholas Church and Fulford Hall; and has an organic road structure. Modern additions are located in the south and the eastern parts of the village which is contained by Fulford Road on its south side. The village is located on the south side of a small valley and the upper floor windows of houses often have views to the northern side of the valley whilst ground level views tend to be restricted by other houses.</p> |

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| | <p>The Bare Ground ZTV indicates extensive visibility to the Development from most parts of the village other than the most northern part. The Screening Effects ZTV presents the likely pattern of visibility of some views from upper floor windows of houses located in southern parts of the village including Cherry Close, Highview Road and Fulford Road. It is possible that there could be some views to the southern-most solar panels and construction processes located in F13 and F15 and seen on the skyline at distances of over 800m. Over time the mitigation hedge planting on the southern sides of these would mostly or completely screen views to the solar panels. It is unlikely that there would be views to the solar panels from the other parts of the village including the Conservation Area and the Shoulder of Mutton public house located centrally. Whilst the Site is located close to the village it is located beyond the edge of the valley in which the village sits and which provides the rural setting of the village. Individual effects at their greatest are likely to be no more than Moderate and not significant, and considered as a whole, effects on the village would be considered to be very limited. Magnitude of Change (Construction and Year 1): Negligible. Level of effect: Minor. Magnitude of Change (Year 15): Negligible. Level of effect: Minor, neutral.</p> |
| Saverley Green | <p>Saverley Green hamlet is located 250m east of the Site and comprises a mix of houses located on Saverley Green Road, Meadowside and Blythe View with some views to its agricultural setting. Four farms including the large grounds of Saverley House Farm are located to the north of the village and mature trees and lanes are typical of that landscape. The Bare Ground ZTV indicates there would visibility to the Development from the western sides of village. However actual visibility to the development would be screened by the mature trees and hedges located within the Site and the intervening fields. The Development would cause no change to views from the village.</p> |
| Gorstyburch | <p>Gorstyburch village is located 430m north of the Site and has a linear form located on Stallington Road. Houses tend to be detached but are compactly spaced and there are few views beyond the road. The houses often have clear views to the countryside located to the east and the west from back windows and gardens. The Screening Effects ZTV indicates that there could be visibility to the Development from the rear of the properties located on the east side of the road. Actual visibility would be reduced by the trees and buildings located at and between the residential properties of Lower Gorsty birch and Stallington Road although there could be some semi screened views to central parts of the Site given their altitude. In addition it is likely that there would be some views to the Development and construction processes located in F1 and possibly F2. Views are likely to be a little clearer during periods of leaf loss and likely to reduce by Year 15 when mitigation planting and management on the northern boundaries and within the Site has matured. Individual effects at their greatest are likely to be no more than Minor and considered as a whole, effects on the village would be considered to be very limited. Magnitude of Change (Construction and Year 1): Negligible. Level of effect: Minor. Magnitude of Change (Year 15): Negligible. Level of effect: Negligible.</p> |

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| Stallington | <p>Stallington is located 490m west of the Site between Stallington Road and Fulford Land. The village comprises a series of modern closes and houses clustered around the historic and ruined house on its south side. The village is located on ground which rises to the south with some elevated views to the east from properties located on the east side of the village, as verified by the Screening Effects ZTV. Viewpoint 5 represents these views although some views would be more elevated and therefore likely to be greater. Some construction processes and the tops of some of the panels would be visible located to the north of the buildings at Little Leacroft Farm including F1 and F3. The mast and substation would be screened by trees on the Site. Existing hedges would screen the lower portion of the solar panels and this would further reduce with growth of existing hedges and proposed hedge trees. Most of the other built development would be screened by the woodland blocks located in the intervening fields or within the Site although it is likely that the solar panels within central parts of the Site would be more visible during periods of leaf loss. In winter or periods when there are lower-lying crops in the foreground fields there may be some visibility to solar panels located in F5 and F7, seen beyond boundary hedges and the trees located on the west side of F5 and F7. The solar panels would not be prominent at any point however. There would be no further visibility from houses or ground level areas including the public open space located on the west side of the village.</p> <p>Individual effects at their greatest are likely to be no more than Minor and considered as a whole, effects on the village would be considered limited.</p> <p>Magnitude of Change (Construction and Year 1): Low. Level of effect: Minor.</p> <p>Magnitude of Change (Year 15): Negligible. Level of effect: Negligible.</p> |
| Blythe Bridge located 850m north of the Site; | <p>Blythe Bridge is located 530m north of the Site and follows the A521 extending to the A50 which forms its southern boundary. The town is low-lying, sitting in the base of the Blithe Valley. Blythe station is located centrally and residential streets tend to have organic patterns which tends to limit long views and the embankment and mature trees associated with the A50 also limit views to the south towards the Site. The Bare Ground ZTV shows potential visibility from central and eastern parts of the town whilst the Screening Effects ZTV indicates that there would be no visibility. It is possible that there could be some glimpse views to very small parts of the Development from windows of houses facing the Site or from some of the straight roads which align with the Site e.g. Green Lane. Whilst potentially theoretically visible, views would be to the back side of solar panels which would not be prominent or construction processes which are short term.</p> <p>Individual effects at their greatest are likely to be no more than Negligible and considered as a whole, effects on the village would be considered to be very limited.</p> <p>Magnitude of Change (Construction, Year 1 and Year 15): Negligible. Level of effect: Negligible</p> |
| Draycott in the Moors | <p>Draycott in the Moors is a small settlement located 1.2km to the north-east of the Site, forming linear development on Uttoxeter Road over a section measuring 1.7km. It includes a historic area around the junction with Cheadle Road including the church. The settlement is located at approximately 160m AOD and there are some views from eastern parts across the Blithe Valley. The ZTVs indicate that there could be some views to the Development from central and eastern</p> |

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| | <p>parts although the clearest views are likely to be from south-facing windows of properties located on the south side of Cheadle Road. Views from public locations are likely to be very limited and, where visible much of the Site would be screened by trees located on the Site. In addition the north-facing back side of the panels would face the viewer, reducing prominence.</p> <p>Individual effects at their greatest are likely to be no more than Minor and considered as a whole, effects on the village would be considered to be very limited.</p> <p>Magnitude of Change (Construction, Year 1 and Year 15): Negligible. Level of effect: Minor to Negligible.</p> |
| Totmonslow | <p>The small village of Totmonslow is 3.3km to the east of the Site and located on the junctions of Uttoxeter Road and Breach Lane. Located at more than 175m AOD there are some long views to the south side of the Blithe Valley. Viewpoint 8 represents views from the west side of the hamlet and indicates that the Site is largely screened from view and it is unlikely that the detail of construction would be clearly visible. Any lighting may be visible but scattered lights are typical of the wider view.</p> <p>The Site is largely screened from view by intervening trees and those located within the Site itself. It is possible that there could be glimpse views to some of the solar panels located in the most elevated and western parts of the Site. Visibility would be greater during foliage loss but would remain limited. This view is likely to represent the clearest visibility to the Site and individual effects at their greatest are likely to be no more than Minor and considered as a whole, effects on the village would be considered to be very limited.</p> <p>Magnitude of Change (Construction, Year 1 and Year 15): Negligible. Level of effect: Negligible.</p> |
| Cresswell | <p>The village of Cresswell is 1km east of the Site and located on Sandon Road on both sides of the railway line, next to the River Blithe. A business park, Blythe Park, is located next to the river and Blythe Cricket Club is located in the northern part of the village. Views to the north are truncated by the embankments of the A50. Viewpoint 7 represents views towards the Site from the village. Whilst the ZTVs indicate that there is likely to be some visibility to the Development from western and northern parts of the village, the viewpoint indicates that visibility would be very limited.</p> <p>There would be some views to central and northern parts of the Site although most parts of the Site would be screened by trees on the Site or in nearby vegetation. Elsewhere there would be a broken pattern of visibility, the Development largely screened by trees and hedges on the Site and within the intervening landscape. Some construction activities would be visible although primarily through the change of green pasture to the browns of soil, and the use of lights. These changes are typical of the surrounding landscape however. The parts of the Site which are visible are interspersed by trees and the changes would affect a small part of the view.</p> <p>Seen from this direction the sides of the solar panels and frames would face the viewer, presenting a less prominent side which would reduce prominence.</p> <p>At Year 15 the growth of trees and hedges would reduce visibility to an imperceptible degree and changes would remain the same. Generally the Development would be more visible during periods of foliage loss although trees and hedges would continue to soften and partially screen most of the Site.</p> |

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| | <p>This view is likely to represent the clearest visibility to the Site from Cresswell and individual effects at their greatest are likely to be no more than Minor and considered as a whole, effects on the village would be considered to be very limited.</p> <p>Magnitude of Change (Construction, Year 1 and Year 15): Negligible. Level of effect: Negligible.</p> |
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At no residential property would visual effects cause an overbearing impact, visual dominance or a loss of outlook.

7.3 Visual Effects on Views from Recreational Routes

Of those recreational routes identified in the baseline in Section 4 the Screening Effects ZTV indicates some theoretical visibility of the Development from a number of public footpaths and bridleways which pass within 1km of the Site and long distance routes within 3.5km. Visual effects are considered in the table below. Effects on the routes are assessed sequentially as a whole. The sensitivity of users of each of the PRow within 1km has been assessed High as they are well-used, the quality of views contribute to the value of the recreational experience, and they pass through open countryside which has a high susceptibility to change.

Any significant effects likely to occur at any one location have been identified in addition to an assessment of effects on the route considered sequentially as a whole.

Table 15: Visual Effects on Recreational Routes

| Route | Description of Effect |
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| PRow within 1km | |
| Two public footpaths crossing the Site between Fulford and Saverley Green (C12, C13, C15, C16, C24, C25, C26, C27 and C29). | <p>Two well-used public footpaths cross the Site between Fulford and Saverley Green link with Cresswell Road and Sandon Road. Measured together the footpaths are 4.8km long. At present they cross sloping, grazed fields and a series of hedge and tree field boundaries. In places, although ground is sloping, views beyond each field are limited by the trees. There are some long distance views from the western-most route however across the Blithe Valley to the north. The Lower Newton solar farm is visible 3.3km to the east (see Viewpoint 1) but overall views from the routes are predominantly rural and typical of the local landscape. The paths follow rough tracks and grazed fields, often crossing field boundaries with styles and, in places can be trampled by hoofs and damp.</p> <p>The photomontages in Viewpoint 1 demonstrate that where the routes cross the Site, the solar panels would be seen at close quarters and prominent in the walker's experience. They would screen views to other parts of each field that is crossed and would introduce prominent man-made structures into views. Over time the hedges that have been planted between the footpaths and the solar panels would screen most views to the solar panels. However this would cause the experience of walkers to become more enclosed and part of the long views to the north would be screened. A set-back has been included where the eastern-most path crosses F17. However the solar panels and the transformer would be clearly visible and the path would cross the access track.</p> <p>The presence of people and machinery during the construction process would have the most disruptive effect on the visual amenity of path users although it would be for a relatively short period of a maximum of nine months and physical access to the PRow's would continue at all times during the construction process.</p> <p>There would be some intermittent and partially screened views to solar panels located in the Site from the paths as they approach the Site from the south towards F17, and from the north towards F14 and F16. Some visibility to the solar panels would occur over approximately 1.2km or 25% of the total route.</p> <p>Significant effects would occur on path users over distances of approximately 600m or approximately 13% in total as the paths cross F17 and between F13-16 moving in either direction. Static effects at their greatest are likely to be no more than <u>Major/Moderate</u>.</p> |

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| | <p>Magnitude of Change (Construction): Medium. Level of effect: <u>Major/Moderate</u>.</p> <p>Magnitude of Change (Year 1 and Year 15): Low. Level of effect: Moderate and not significant.</p> |
| Public footpaths located on the track between Fulford Hall and Saverley Green Road and Meadow Lane (C13). | <p>Three sections of public footpath are located on the track between Fulford Hall, Saverley Green Road and Meadow Lane. The main path also serves as farm access to the fields and shows signs of footpath use although the eastern-most section is less well-used and prone to waterlogging. The paths measure a total of 1.4km in length and the closest section to the Site is located on the southern boundary of F18. At present they cross an undeveloped series of fields although the village of Fulford is visible in most views other than from the section located on the south side of F18.</p> <p>The solar panels located in F18 would be partially visible through the intervening hedge from a 170m section of the track which comprises 12% of the footpaths in total. Whilst clearly visible the solar panels would not be prominent given the stand-off from the southern boundary.</p> <p>The presence of people and machinery during the construction process would have the most disruptive effect on the visual amenity of path users although it would be for a relatively short period of a maximum of nine months. Physical access to the PRoWs would continue at all times during the construction process. Over time boundary hedges would mostly or fully screen the Development.</p> <p>Significant effects would not occur on path users at any single location moving in either direction.</p> <p>Magnitude of Change (Construction): Low. Level of effect: Moderate, not significant.</p> <p>Magnitude of Change (Year 1): Low. Level of effect: Minor.</p> <p>Magnitude of Change (Year 15): Negligible. Level of effect: Negligible.</p> |
| Public footpaths linking the north side of Fulford with Stallington and continuing to the west (C1, C4, C2 and C10). | <p>A public footpath links the north side of Fulford with Stallington and continues to the west over a total distance of 2km. The paths are well used, cross open countryside and agricultural fields, and there are some long views across the Bliithe Valley to the north. Although the Development would be largely screened from view over much of the paths, there would be some clear and elevated views to the Development located in western and northern parts of the Site from the highest points of the path midway between Stallington and Fulford. The woods located within central parts of the Site would tend to screen views to the other parts of the Development. Seen at distances of between 500m and 1km the Development would be seen as part of the wider view which contains built development of Gorstybirch and Blythe, and would it be partially screened. From this location the front faces of the solar panels would increase prominence. Some construction processes would be visible although not dominant. Visibility would occur over relatively short sections of the total route assessed.</p> <p>Physical access to the PRoWs would continue at all times during the construction process.</p> <p>Over time boundary trees and hedges would screen views the Development to a degree although it would remain visible.</p> <p>Significant effects would not occur on path users at any single location moving in either direction.</p> <p>Magnitude of Change (Construction, Year 1 and Year 15): Low. Level of effect: Moderate, not significant.</p> |
| Public footpaths located on the south side of Fulford linking with Cresswell Road (C11, C18, C23, C31 and C34). | <p>There are two footpaths located on the south-east side of Fulford linking with Cresswell Road over sections measuring a total of 2.2km. They cross the head of the small valley located to the south of the Site and ground levels are highest near to Cresswell Road where there are some long views to the north across an agricultural landscape interspersed with hedge trees and hedges.</p> <p>There would be some views to the solar development located in F17-19 from short sections of the routes around the 200m contour line and from here the front face of the solar panels would cause the Development to contrast with the greens of the surrounding landscape. However only small areas of the solar farm would</p> |

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| | <p>be visible and these are likely to be visually broken up by the hedges and trees located on the Site. Construction activities would also be visible but would not be prominent at distances of over 500m. The growth and maturing of boundary hedges and new hedge trees would further soften views to the Development. And conversely visibility would be greater during periods of leaf loss. Views would be similar to those represented by Viewpoint 6 on Long Lane.</p> <p>Significant effects would not occur on path users at any single location moving in either direction.</p> <p>Magnitude of Change (Construction, Year 1 and Year 15): Low. Level of effect: Moderate not significant to Moderate/Minor.</p> |
| Short sections of public footpath located on the west side of Fulford (C9, C19, C20, C33, C36). | <p>There are three short sections of public footpath located on the west side of Fulford. They cross rising ground and there are some views across the small valley in which Fulford lies and towards the southern part of the Site. It is possible that there could be some views to small parts of Development located in F13, F15 and /or F18. However they would be partially screened by existing trees and hedges and would be seen beyond and in the context of the built development at Fulford.</p> <p>Some construction processes may be visible although not prominent at distances of over 900m. Over time boundary hedges would mostly or fully screen the Development.</p> <p>Significant effects would not occur on path users at any single location moving in either direction.</p> <p>Magnitude of Change (Construction, Year 1 and Year 15): Low. Level of effect: Moderate/Minor.</p> |
| Public footpath linking Blythe with Saverley Green (For20b and C26). | <p>There is a public footpath linking Blythe with Saverley Green which passes the eastern boundary of the Site and measures a total of 2.2km. From the north leaves a residential suburb, passes under the A50 and crosses poor quality grazings until it reaches the eastern boundary of the Site which it continues to follow in a south-bound direction. From the south the path exits the north side of Saverley Green on a farm track before crossing grazed fields with stile and ditch bridge crossings. The path offers a tranquil experience with limited built development located within views other than typical agricultural elements although the noise of traffic on the A50 is sometimes dominant depending on wind direction.</p> <p>The solar panels located in F1-3 would be clearly visible within 300-400m when moving north and southwards. South-bound views are represented by Viewpoint 4 where effects on path users have been assessed as <u>Moderate</u> during construction and at Year 1, and Minor at Year 15.</p> <p>The construction processes in F1 and F8, and solar panels located in the eastern part of F1 would be clearly visible beyond the perimeter hedge with some glimpse views to some smaller areas of solar panels located in of the central parts of the Site although existing trees and hedges would screen the majority of the Development. It is likely that most of the mast and substation would be screened although lighting may be visible particularly during periods of foliage loss. At Year 15 the boundary hedges and proposed hedge trees in F1 would have matured sufficiently to screen most built development. Visibility at all stages of the Development would be greater in the winter during foliage loss. Visibility at all life stages of the Development would be greater in the winter during foliage loss.</p> <p>The more visually recessive back sides of the solar panels on frames would be visible from this direction but at this proximity the structures would be clearly visible. Where visible from the sections of the path located to the south, the front face of the panels would be visible and prominent.</p> <p>It is likely that some significant effects would occur on path users at located close to the eastern side of the Site moving in either direction. Views to the solar farm would influence users of the path over nearly half of the route. Static significant <u>Moderate</u> effects would occur.</p> |

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| | Magnitude of Change (Construction): Low. Level of effect: Moderate, not significant. |
| Public footpath located north of the A50 (For6 and DrM9). | <p>There is a public footpath located north of the A50 which is partially affected by the Screening Effects ZTV and links Blithe with the landscape to the south of the A50. There may be a small area of visibility to the central, more elevated parts of the Site beyond the embankments and trees associated with the A50. However any views to the back sides of the solar panels are not likely to be prominent at distances of 1.5km to central parts of the Site.</p> <p>The presence of people and machinery during the construction process would be difficult to see. Physical access to the PRowS would continue at all times during the construction process.</p> <p>Significant effects would not occur on path users at any single location.</p> <p>Magnitude of Change (Construction, Year 1 and Year 15): Negligible. Level of effect: Negligible.</p> |
| Other Recreational Routes | |
| The Stone Circles Challenge | <p>The Stone Circles Challenge long distance footpath crosses the southern part of the study area and passes the Site within 550m near Fulford. The route crosses a section measuring 9.5km</p> <p>The sensitivity of users of the Stone Circles Challenge has been assessed High as it is well-used, the quality of views contribute to the value of the recreational experience, and users pass through open countryside which has a high susceptibility to change.</p> <p>The ZTVs indicate that there could be some intermittent visibility to the Development from sections of the route to the east of Fulford where the route crosses relatively high ground, following a ridge and past a trig point with some long views to the north. However, much of the route follows tracks and small lanes which are typically bounded by hedges which often restrict views to the north. In addition the intervening landscapes comprise fields with hedges and hedge trees which contribute further to screening. It is likely that there could be some glimpse views to the solar panels located in the southern-most parts of the Site, mainly through field access gaps in hedges next to the route. Where visible, the front faces of the panels would reflect sky conditions which could increase visibility. The clearest views are represented by Viewpoint 6 located at Long Lane which is 755m from the site. The solar panels would be mostly screened by the landform and intervening trees and hedges. There would, however, be visibility to the outer edge of the groups of solar panels located on the south sides of F13 and F15 located on the skyline where not screened by intervening vegetation. The front faces of the panels would be seen against the sky although their potential prominence in this location would be tempered by reflection of the tones of the sky and the small change at this distance. The growth of the proposed hedge and trees on the boundaries of F13 and F15 would fully screen the solar panels over time.</p> <p>The presence of people and machinery during the construction process would be difficult to see. Physical access to the PRowS would continue at all times during the construction process.</p> <p>The greatest static effect on users would be Minor and significant effects would not occur on route users at any single location.</p> <p>Magnitude of Change (Construction, Year 1 and Year 15): Negligible. Level of effect: Negligible.</p> |
| Foxfield Steam Railway and Blythe Bridge | <p>Foxfield Steam Railway is located 1.7km to the north of the Site and the section located within the study area is 2.6km long. Blythe Bridge station is located 2km north of the Site. The sensitivity of users of the railway has been assessed as Medium as it is well-used, the quality of views contribute to the value of the recreational experience and users pass through open countryside which has a high susceptibility to change, although the train itself is a major part of the experience.</p> <p>The ZTVs indicate that there could be some visibility to the Development close to the station and in the northern part of the line. However trees and hedges located adjacent to the line and in the intervening landscape are likely to screen</p> |

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| | <p>most views and to the extent that changes to the view would be imperceptible. In addition the less prominent, rear side of the panels would be visible from this direction.</p> <p>No significant effects would not occur on route users at any single location.</p> <p>Magnitude of Change (Construction, Year 1 and Year 15): Negligible. Level of effect: Negligible.</p> |
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7.4 Visual Effects on Views from Outdoor Sport and Recreation Locations

Of those outdoor sport and recreation locations identified in Section 4 of the baseline, the Screening Effects ZTV indicates some theoretical visibility of the Development from the following locations. Their sensitivity and susceptibility varies according to users.

Any significant effects likely to occur at any part of each sport and recreational location have been identified, in addition to an assessment of effects on the location considered as a whole.

Table 16: Visual Effects on Outdoor Sport and Recreation Locations

| Location | Description of Effect |
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| Fulford Village Hall and open space | <p>Fulford Village Hall and open space is located approximately 600m to the south. It is considered that receptors located here would be engaged with activities that are not reliant on views and sensitivity is judged to be Medium.</p> <p>The ZTVs indicate that there could be some visibility to the Development. Whilst views from the hall and the ground immediately to its north side are likely to be fully or mostly screened by trees located close to the hall, there may be some visibility from the open ground beyond to the north. 200-210m AOD. There could be some visibility to the solar panels located on the south sides of F13 and F15 although these are located on the ground which falls beyond a ridge which rises from 200-215m AOD, and they are set back from the ridge and the edge of the Site. It is possible that there could be some visibility to some solar panels and the construction processes on the south side of this part of the Site. These changes, whilst likely to be relatively small, may be visible on the horizon. Within 4-5 years the proposed boundary hedge would have grown sufficiently to screen all views to built development.</p> <p>Magnitude of Change (Construction and Year 1): Low. Level of effect: Moderate/Minor.</p> <p>Magnitude of Change (Year 15): Negligible. Level of effect: Negligible.</p> |
| Blythe Cricket Club | <p>Blythe Cricket Club is located 1.8km to the east and it comprises a club house, parking and pitch. Views from the entrance and car parking are represented by Viewpoint 7 where effects on recreational users have been assessed as being Minor to Negligible. From here there would be some partially screened views to central and northern parts of the Site although most parts of the Site would be screened by trees on the Site or in nearby vegetation. Some construction activities would be visible although primarily through the change of green pasture to the browns of soil, and the use of lights. These changes are typical of the surrounding landscape however. The parts of the Site which are visible are interspersed by trees and the changes would affect a small part of the view. Seen from this direction the sides of the solar panels and frames would face the viewer, presenting a less prominent side which would reduce prominence. At Year 15 the growth of trees and hedges would reduce visibility to an imperceptible degree and changes would remain the same. Generally the Development would be more visible during periods of foliage loss although trees and hedges would continue to soften and partially screen most of the Site. Views from the club house and cricket pitch would be fully screened by vegetation located on its boundaries. The greatest effect would be at the entrance where effects have been assessed as Minor.</p> <p>Magnitude of Change (Construction, Year 1 and Year 15): Negligible. Level of effect: Negligible.</p> |

7.5 Visual Effects on Views from Transport Routes

Of those key transport routes identified in Section 4, the Screening Effects ZTV indicates some theoretical visibility of the Development the routes considered in Table 17 below.

Users of main (A-class) roads and railways are judged to be of Low sensitivity and susceptibility to the Development because they pass through the area at high speed with limited awareness or value of their surroundings. Users of local (B-class) and minor roads are judged to be of Medium sensitivity and susceptibility as users travel at slower speeds and generally have a greater appreciation and value of their surroundings.

Any significant effects likely to occur at any one location have been identified in addition to an assessment of effects considered sequentially as a whole.

Table 17: Visual Effects on Transport Routes

| Location | Description of Effect |
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| Minor Roads within 1km | |
| Saverley Green Road and Fulford Road | <p>The roads measure a total length of 2.4km within 1km of the Site, located adjacent to the southern side of the Site and the public road access. The route crosses a rural and agricultural landscape. The ZTVs indicate that there could be visibility to the Development from much of the route other than areas within Fulford and Saverley Green. The greatest effects would occur on the section of the route adjacent to the Site boundary where there would be some clear views to the construction and operational stages of the new access road and bell mouth, and the solar panels located in F19, 160m from the road. A section of road side hedge (approximately 35m) would be removed, increasing views into the Site. Views are represented at Viewpoint 2. The growth of the proposed hedges at the road side, the new track and on the southern side of the solar panels would reduce visibility of the built elements within 4-6 years. Over time the trees located on the south side of F19 would further soften any remaining views to the solar panels. All other views from the route would be screened by hedges, trees and houses. Changes would affect a section measuring 315m which comprises 13% of the route considered. The greatest static effects would be during construction and Major/Moderate close to the road entrance, albeit temporary. Considered sequentially, effects would not be significant.</p> <p>Magnitude of Change (Construction): Medium. Level of effect: Moderate not significant. Magnitude of Change (Year 1): Medium. Level of effect: Moderate not significant. Magnitude of Change (Year 15): Low. Level of effect: Moderate/Minor.</p> |
| Cresswell Road and Sandon Road | <p>The roads measure a length of 1.8km within 1km of the Site and area located within 600m of the south side of the Site. The route crosses a rural and agricultural landscape. The ZTVs indicate that there could be some visibility to the Development from most parts of the route other than from parts of Saverley Green and the Mount Pleasant area. Road side hedges and intervening hedges and hedge trees would limit actual visibility considerably. It is likely that the greatest visibility to the Development would be from short sections where there are gaps in hedges near Meadow View Farm. From here it is likely that some of the solar panels located in F19 would be visible, albeit partially filtered by the trees located on ground that falls away on the west boundary of the property, and on Saverley Green Road. Winter foliage loss would increase visibility to the solar panels which would be seen sloping towards the viewer and often comparatively pale in tone. The mitigation planting would help screen views to them – less so in winter. The construction of the road entrance and operations in F19 would be visible. At this distance the changes would affect a relatively small part of the wider view. The greatest static level of effect would be Moderate/Minor. Considered sequentially, effects would not be significant.</p> |

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| | <p>Magnitude of Change (Construction and Year 1): Negligible. Level of effect: Minor/Negligible.</p> <p>Magnitude of Change (Year 15): Low. Level of effect: Negligible. Level of effect: Minor/Negligible.</p> |
| Long Lane | <p>The lane measures a length of 600m within 1km of the Site and is located 600m south-west of the Site. The ZTVs indicate that there could be visibility to the Development from much of the route. Actual visibility is more limited however due to road-side hedges and occasional views towards the Site occur through field entrances. Typical views are represented by Viewpoint 6 where the solar panels would be mostly screened by the landform and intervening trees and hedges. There would, however, be visibility to the outer edge of the groups of solar panels located on the south sides of F13 and F15 located on the skyline where not screened by intervening vegetation. The front faces of the panels would be seen against the sky although their potential prominence in this location would be tempered by reflection of the tones of the sky and the small change at this distance. The growth of the proposed hedge and trees on the boundaries of F13 and F15 would fully screen the solar panels over time.</p> <p>The greatest static level of effect would be Minor. Considered sequentially, effects would not be significant.</p> <p>Magnitude of Change (Construction, Year 1 and Year 15): Negligible. Level of effect: Minor/Negligible.</p> |
| Stallington Road | <p>The lane measures a length of 2.5km and is located 240m to the north-west of the Site. The ZTVs indicate that there could be visibility to the Development from central and northern parts of the route. Actual visibility is more limited however due to road-side hedges which allow occasional views towards the Site through field entrances. Typical views are represented by Viewpoint 5 where there would be some glimpse views to the tops of some of the panels located to the north of the buildings at Little Leacroft Farm including F1 and F3. The mast and substation would be screened by trees on the Site. Existing hedges would screen the lower portion of the solar panels and this would further reduce with growth of existing hedges and proposed hedge trees. In winter or periods when there are lower-lying crops in the foreground fields there may be some visibility to solar panels located in F5 and F7, seen beyond boundary hedges and the trees located on the west side of F5 and F7. The solar panels would not be prominent at any point however. It is likely that these changes to views would occur to a small percentage of road users and static and sequential effects would not be significant.</p> <p>The greatest static level of effect would be Minor/Negligible. Considered sequentially, effects would not be significant.</p> <p>Magnitude of Change (Construction, Year 1 and Year 15): Negligible. Level of effect: Negligible.</p> |
| Main Routes within 3.5km | |
| A50 | <p>The A50 crosses the north-east part of the study area over a section measuring 780m, 460m north and is a dual carriageway. Much of the route is either sunk in cuttings or fenced and road side trees and hedges obscure views from most of the route. A number of sections are located on embankments where there are occasional breaks in the trees or views from bridged over the railway, roads or the river/streams. There would be some short sections of visibility to southern and central parts of the Development north and south-bound. From these locations the change to the view would be minimal, seen within the context of other occasional built development and fragmented by the trees and hedges within the Site. The changes would also be very short lived given the average speed of traffic. Views from lorry cabs and coaches would be a little clearer given their height.</p> <p>The greatest static and sequential effects would be negligible.</p> |

| | |
|----------------------------|--|
| | Magnitude of Change (Construction, Year 1 and Year 15): Negligible. Level of effect: Negligible. |
| A521 | <p>The road measures a length of 5.6km and passes within 1.1km to the north of the Site. The ZTVs indicate that there could be some intermittent visibility to the Development, primarily from just north of Forsbrook, remaining sections of the road screened by built development or landform. Actual visibility to the Development would be further reduce by road-side hedges. It is possible that there could be glimpse views to the Development travelling south-bound just north of Forsbrook, however changes in the view would be limited by views to the backs of the solar panels and the limited parts of the Site visible. Static and sequential effects would be minimal.</p> <p>Magnitude of Change (Construction, Year 1 and Year 15): Negligible. Level of effect: Negligible.</p> |
| A5029 | <p>The road measures a length of 2.15km and passes within 1.6km to the north-west of the Site. The ZTVs indicate that there could be some intermittent visibility to the Development from central sections of the road where views are less affected by built development. Actual visibility would be further limited by a road-side hedge and visibility to the Development would be limited to views to very small parts of the Site from short stretches of the road. Considered statically and sequentially effects would be Negligible.</p> <p>Magnitude of Change (Construction, Year 1 and Year 15): Negligible. Level of effect: Negligible.</p> |
| East Midlands Railway line | <p>The road measures a length of 9km and passes within 420m to the north-east of the Site. The ZTVs indicate that there could be visibility to the Development from most sections of the railway line to the east of Blythe. Actual visibility would be significantly reduced by hedges and scrub located adjacent to the railway line itself, and the hedges, trees and riparian scrub located in the intervening low-lying landscape and associated with current and previous courses of the River Blithe. It is likely that there would be some views to the Development located in northern and possibly eastern parts of the Site from the railway line south of Blythe, and intermittently further south. There would be more views to the Site facing north-bound. The trees located in boundary hedges and within the woodland blocks on the Site would screen most views to central and southern parts of the Site. In addition passengers on trains would tend to be moving at speed and views to the solar farm would be fleeting.</p> <p>Static and sequential effects would not be significant.</p> <p>Magnitude of Change (Construction, Year 1 and Year 15): Negligible. Level of effect: Negligible.</p> |

Section 8.0: Cumulative Effects

The construction and operational period of the Development has potential to cause landscape and visual changes to the study area cumulatively with other large-scale developments. Existing developments that are located within the study area at present are taken into account in the assessment of effects in sections 6 and 7. This section addresses the potential cumulative effects with future as yet unbuilt developments.

The assessment of cumulative effects is essentially the same as for the assessment of the stand-alone landscape and visual effects, in that the level of landscape and visual effect is determined by assessing the combination of sensitivity of the landscape or visual receptor (ranging from High to Negligible) and the magnitude of change (ranging from High to No change).

Types of cumulative effect are defined as follows:

- Cumulative Landscape Effects: Where more than one type of development may have an effect on a landscape designation or particular area of landscape character.
- Cumulative Visual Effects: Where the cumulative or incremental visibility of similar types of development combined generate a cumulative visual effect. Effects may be simultaneous or combined, successive or repetitive or sequential.

This process is described in more detail in Appendix 1 (Methodology) of the LVIA.

As part of the baseline, a search was undertaken of other large developments, including ground-mounted solar PV array developments that are operational, approved or subject of a valid planning application within 3.5km of the Site. Developments include:

- The operational Lower Newton Farm Solar Farm (11.5MW). Planning application number SMD/2014/0197, located 2.5km east of the Site; and
- The approved Upper Newton Farm Solar Farm with battery storage facility. Planning application number SMD/2022/0160, located 2.5km east of the Site adjoining the Lower Newton Solar Farm.

In addition the planning application Lower Tean Leys Solar Farm Planning application number SMD/2023/0059, located 3.6km south-east of the Site has been included in the cumulative developments because it physically and visually forms a cluster of solar farms with the two developments located to its west.

Cumulative solar developments are shown on Figure 6.

Potential cumulative scenarios are as follows:

- Scenario 1: Leaford Solar Farm introduced into a baseline which contains Lower Newton Farm Solar Farm and the approved Upper Newton Farm Solar Farm.
- Scenario 2: Leaford Solar Farm introduced into a baseline which contains Lower Newton Farm Solar Farm, the approved Upper Newton Farm Solar Farm and the planning application Lower Tean Leys Solar Farm.

There is a considerable area of new housing being developed 670m to the north-east of the Site beyond the A50 at Stonehouses. In addition the following developments at pre-determination stage:

- A motorist services on the A50 3.2km to the east of the Site and adjacent to the Lower and Upper Newton Solar Farms;
- An application to restore the quarry area to create a golf course east of Drawycott Cross 3.2km to the north-east; and
- A request for a scoping opinion for a proposed Combined Cycle Gas Turbine (CCGT) Power Station located on the east side of Cresswell 1.6km east of the Site.

It is not considered that the motorist services or quarry restoration would have cumulative effects with Leaford Solar Farm. However it would be possible that the proposed Combined Cycle Gas Turbine (CCGT) Power Station located on the east side of Cresswell could have some cumulative effects given the related nature of the development (electricity production) and proximity to Leaford Solar Farm. However given its stage at scoping, it would not be possible to accurately predict cumulative effects and this has not been considered further.

Other than this development, it is not anticipated that the baseline conditions of much of the local landscape character and land use described above will differ significantly in the future. This is due to the nature of the Site under agricultural use, and the existing agricultural uses and woodland cover, and

existing settlements and development which dominate the study area. In addition the designation of the Site and much of the study area as Green Belt will also limit change.

The operational stages of Leaford Solar Farm and other existing or proposed solar farms has been assessed.

8.1 Cumulative Landscape Effects

Like the Leaford Development, the operational Lower Newton Farm Solar Farm is also located within Settled Plateau Farmland Slopes LCT and has been included within the assessment of effects on landscape character and designations in section 6. In addition, the consented Upper Newton and application Lower Tean Leys solar farms are proposed within the same LCT adjacent to the operational Lower Newton Solar Farm, and 425 m to the north-west north of the A50. If permitted and constructed, these solar farms would almost merge forming a large area of solar development on the south-facing slopes of the Blithe Valley measuring a total of nearly 3km. Considered without the Leaford Solar Farm, this would create a new key characteristic of 'solar farms' within Settled Plateau Farmland Slopes LCT which would be a significant change. When considering the Leaford Solar Farm within this cumulative baseline context, the effects, whilst contributing further solar development to the LCT, would no longer cause a significant change by adding a new key characteristic.

The landscape sensitivity of LCT Settled Plateau Farmland Slopes to solar development is judged to be Medium.

Scenario 1: Should just the operational Lower Newton Farm Solar Farm and the approved Upper Newton Farm Solar Farm be considered in the baseline, the addition of Leaford Solar Farm would cause a Medium magnitude of change to LCT Settled Plateau Farmland Slopes. The level of effect at Year 1 and Year 15 would be Moderate and significant.

Scenario 2: Should all three of the considered solar farms be present in the baseline the addition of Leaford Solar Farm would cause a Medium magnitude of change to LCT Settled Plateau Farmland Slopes. The level of effect at Year 1 and Year 15 would be Moderate and not significant.

8.2 Cumulative Visual Effects

The existing Lower Newton Solar Farm, the consented Upper Newton Solar Farm and the application Lower Tean Leys Solar Farm are all located on the south-facing slopes of the Blithe Valley and therefore would share visibility in longer views. They have therefore been considered together (Scenario 1 and 2).

There would be simultaneous or combined visibility to Leaford Solar Farm and the solar farms in Scenarios 1 and 2 from the highest ground located between Meir Heath north-west of the Site and the Stone Heath area to the south east. There is likely to be cumulative visibility in the following locations:

- The footpaths which cross the ridge located on the south-west side of the Site including PRoW C3 and PRoW (C15) which crosses the Site from Fulford to Saverley Green where both groups would be visible simultaneously. However the cumulative group would form a relatively small element in the view relative to the foreground solar panels of Leaford Solar Farm and cumulative effects would be Negligible. Views are represented by Viewpoint 1.
- Residential district of Meir Heath where there are likely to be simultaneous views to parts of Leaford Solar Farm on the higher ground in the middle distance, and the cumulative solar farms at a distance of over 5km on the north-facing side of the Blithe Valley. It is likely that the distances between the solar farms and the wider urban context would negate any significant effects which would be Negligible however.
- The area north of Bromley Wood which includes the Stone Circles long distance footpath where both groups are likely to be visible successively in different viewing directions. There would be visibility to the outer edge of the groups of the Leaford solar panels located on the south sides of F13 and F15 where not screened by intervening vegetation. However this would cause a small change and the cumulative effect would be Negligible.

There would be successive or repetitive or sequential visibility to Leaford Solar Farm and the solar farms in Scenarios 1 and 2 in the following locations:

- The A50 where there would be some clear views to the Scenarios 1 and 2 groups from relatively close locations. However views to the Leaford Solar Farm would be very limited due to screening by embankments and road-side trees. Cumulative effects would be sequential but Negligible.
- The East Midlands Railway where there would be some clear and extended views to the Scenarios 1 and 2 groups from relatively close locations. In addition there would be a number of sequential views to the Leaford Solar Farm, also fairly close. Users of the railway line have been judged to have Low sensitivity. The cumulative magnitude of change would be Medium and the effect Moderate/Minor.

The introduction of Leaford Solar Farm into Scenario 1 and Scenario 2 would not cause significant cumulative visual effects.

Section 9.0: Summary & Conclusion

The LVIA has recorded and analysed the baseline landscape resource and visual amenity of the Site and surrounding area, identified the landscape and visual receptors likely to be affected by the Development, and determined the nature and extent of these effects.

The LVIA has concluded that, whilst the Development would give rise to varying degrees of mostly adverse landscape and visual effects on a number of receptors, the degree of effects predicted to occur during the operational phase would be limited and significant effects would occur mainly within the Site itself and its immediate setting.

A study area of 3.5km radius around the Site has been selected to assess potential effects.

Summary of Predicted Landscape Effects

The Site is located in Settled Plateau Farmland Slopes LCT which is well represented in the study area. In addition, the study area contains well represented areas of Settled Plateau Farmlands LCT, Sandstone Hills and Heaths LCT and Dissected Sandstone Cloughs and Valleys LCT, as well as urban areas. There are also very small areas of Ancient Slope and Valley Farmlands LCT on the north-east margin of the study area, and Coalfield Farmlands LCT on the west side.

The Site is located within the West Midlands Green Belt but there are no landscape designations within the study area. A number of Conservation Areas at Fulford, Caverswall, Hilderstone and Moddershall; and Listed Buildings and Scheduled Monuments contribute to the historic character, value and sensitivity of the landscape character.

Separate assessments have been made of effect on the fabric of the Site and the landscape character of the Site.

During construction high levels of built development, machinery, plant and people would be present within the Site, locally affecting surface levels, depositing materials and changing the agricultural land use for a period of up to nine months. This would have significant effects on the fabric and the Settled Plateau Farmland Slopes LCT of the Site.

During the 40 year operational period the Development would introduce built structures to most parts of the Site which mainly comprise strings of solar panels located within grazed 'fields'. At present the Site contains few man-made features and the change would dilute the agricultural land use of the fabric of the Site and cause the apparent loss of farmland which would erode the 'peaceful, rural feel'. The limited presence of people or movement generally would limit these effects to an extent on the 'low intensity pastoral farming' key characteristic of Settled Plateau Farmland Slopes LCT. However, the arrangement of solar panels in field-related groups and the proposed enhancement of hedgerows and hedge trees, areas of enhanced grassland and improved biodiversity would improve the quality of those elements of the fabric of the Site, and reflect and strengthen the key characteristics of 'irregular hedged field pattern', 'hedgerow oak and ash trees' and 'broadleaved and conifer woodlands'. The Development would have little effect on the topography of the Site and all areas affected by the solar panels (most of the Site) would continue to be grazed grass, albeit by sheep rather than cattle.

During construction the overall effect of the Development on the fabric of the Site would be significant. At Year 1 and Year 15 the overall effect of the Development on the fabric of the Site would not be significant and by Year 15 effects would be positive. Assessed at site-level effects on landscape character during construction, Year 1 and Year 15 would be significant.

Assessments have been made of the perceptual effects on the receiving and other LCTs of the study area. Perceptual changes would occur within a relatively small percentage of Settled Plateau Farmland Slopes LCT focussed in areas up to approximately 500m to the west, north and east, and up to 1km to the south-east within the LCT. The solar panels would introduce large numbers of man-made elements into what is currently a largely agricultural and little-developed landscape, and this effect would be adverse. In addition the Development would have limited effects on perceptual qualities of the other LCTs Settled Plateau Farmlands LCT, Sandstone Hills and Heaths LCT and Dissected Sandstone Cloughs and Valleys LCT.

Cumulative effects with the existing Lower Newton Solar Farm would include the formation of a new key characteristic of Settled Plateau Farmland Slopes LCT of 'solar farms' which is considered a significant effect on the LCT.

An assessment has been made on effects on the North Staffordshire Green Belt. The solar farm would have some effects on the third purpose of the Green Belt, 'To assist in safeguarding the countryside from encroachment'. It would encroach on the countryside due to the large area of countryside that would be affected primarily by strings of solar panels. This would be partially mitigated however by the preservation and enhancement of field boundary hedges and trees, woodland, ponds, scrub, enhanced grassland and grazed grass under the solar panels themselves. The impacts of encroachment would occur physically across much of the Site, and be apparent visually from a number of locations close to the Site within 500m to the west, north and east; and up to 750m to the south-east where the front face of the panels would be prominent at times. The Development would not affect the remaining four purposes of the Green Belt.

Significant landscape effects would be as follows:

- During construction the overall effect of the Development on the fabric of the Site is considered to be a Major/Moderate adverse effect.
- At site level effects on Settled Plateau Farmland Slopes LCT during construction, Year 1 and Year 15 would be Major/Moderate and adverse.
- Within the study area effects on Settled Plateau Farmland Slopes LCT at Year 1 and Year 15 effects would be Moderate and adverse due to cumulative effects and changes in key characteristics.

Generally landscape effects would reduce as the landscape mitigation started to mature. The proposed maintenance, gap-filling and planting of hedges, hedge trees and other native species habitats on the Site would provide positive benefits to the value of the fabric of the Site and to landscape character by Year 15. Effects would be temporary during construction and long term but reversible at Year 1 and Year 15.

Summary of Predicted Visual Effects

An assessment of effects at nine representative viewpoints has been undertaken to provide an evidence base for the assessment of effects on receptors across the study area. The assessment illustrates that there would be some significant construction and Year 1 effects at Viewpoint 1 Footpath between Site and Fulford, Viewpoint 3 Lower Gorsty Birch and Viewpoint 4 Footpath to north of the Site. There would be significant construction effects at Viewpoint 2 Saverley Green Road. Landscape mitigation would reduce the level of effects at these locations to a not significant level.

The most visible element of the Development would be the solar panels which would be located across much of the Site. The proposed solar panels would be positioned in a series of east/west trending strings, each of which would slope down towards its south side. The solar panels would be most visible when reflecting the pale tones of cloud cover, and seen from the south-west, south and south-east sides from locations of similar or elevated altitude. The Site is located close to the top of north-east facing slopes above the Blithe Valley creating a sphere of visual influence which is focussed across the Site and the Blithe Valley to the north and east. The less prominent rear side of the panels and frames would tend to be seen from these angles. In addition central and southern parts of the Site are characterised by mature trees and hedges located on field boundaries which would further limit visibility to the Development. The Development would be most prominent when seen from close locations including parts of Saverley Road and Cresswell Road; the PRoW which cross the Site and are located to the east within 1km; and some residential visual receptors located at the northern and southern ends of the Site. Significant visual effects would occur within 500m of the Site as follows:

- Visual receptors located at Lower Gorsty Birch (R4 and R5) during construction where effects would be Major/Moderate and during Year 1; Little Leacroft Farm (R6, financially involved) where they would be Moderate to Major/Moderate during construction and Year 1; and R16 where they would be Moderate during construction.
- Two public footpaths crossing the Site between Fulford and Saverley Green where significant static Major/Moderate adverse effects would occur. Assessed as a whole effects would be Major/Moderate during construction.
- Public footpath linking Blythe with Saverley Green where adverse Moderate static, effects during construction and operation would occur, but effects on the routes assessed as a whole would not be significant.
- Saverley Green Road where significant static Moderate effects would occur at the Site entrance during construction but effects assessed as a whole would not be significant.

All effects would be temporary during construction, and long term at Year 1 and Year 15 and reversible. All significant effects would be adverse.

At no residential property would visual effects cause an overbearing impact, visual dominance or a loss of outlook.

Summary of Predicted Cumulative Effects

Like Leaford Solar Farm, the operational Lower Newton Farm Solar Farm is also located within Settled Plateau Farmland Slopes LCT. In addition, the consented Upper Newton and application Lower Tean Leys solar farms are proposed within the same LCT adjacent to the operational Lower Newton Solar Farm. Should just the operational Lower Newton Farm Solar Farm and the approved Upper Newton Farm Solar Farm be considered in the baseline Scenario 1, the addition of Leaford Solar Farm would cause a Medium magnitude of change to Settled Plateau Farmland Slopes LCT. The level of effect at Year 1 and Year 15 would be Moderate and significant. If all three of the solar farms were to be constructed (Scenario 2), these solar farms would almost merge forming a large area of solar development on the south-facing slopes of the Blithe Valley. Considered without the Leaford Solar Farm, this would create a new key characteristic of 'solar farms' within Settled Plateau Farmland Slopes LCT. When considering the Leaford Solar Farm within this cumulative baseline context, the effects, whilst contributing further solar development to the LCT, would no longer cause a significant change by adding a new key characteristic. The level of effect at Year 1 and Year 15 would be Moderate and not significant.

The Upper Newton, Lower Newton and Lower Tean Leys Solar Farms would tend to be seen together within wider cumulative views and have been considered together. There would be simultaneous and successive cumulative visual effects with Leaford Solar Farm from the upper, southern side of the Blithe Valley including the footpaths which cross the ridge located on the south-west side of the Site; the residential district of Meir Heath; and the area north of Bromley Wood which includes Stone Circles long distance footpath. There would also be sequential effects on users of the A50 and the main line railway. However effects would not be significant.

Summary of Effects

Table 18 provides a summary of effects arising from the Development on both landscape and visual receptors.

Table 18: Summary of Effects (all effects are adverse unless otherwise stated)

| Predicted Effect or Receptor | Significant Effects | Not Significant Effects |
|--|--|--|
| Landscape Resource | | |
| Fabric of the Site. | Construction, <u>Major/Moderate</u> . | Year 1 and Year 15, Moderate, not significant. Year 15, Moderate, not significant positive. |
| Settled Plateau Farmland Slopes LCT within the Site. | Construction, Year 1 and Year 15 <u>Major/Moderate</u> . | - |
| Settled Plateau Farmland Slopes LCT within the study area. | Year 1 and Year 15 <u>Moderate</u> . | Construction would be Moderate/Minor. |
| Settled Plateau Farmlands LCT. | - | Construction, Year 1 and Year 15 Moderate/Minor to Minor/Negligible. |
| Dissected Sandstone Cloughs and Valleys LCT. | - | Construction, Year 1 and Year 15 Moderate/Minor to Minor/Negligible. |
| Sandstone Hills and Heaths LCT. | - | Construction and Year 1. Moderate/Minor to Minor. Year 15 Minor to Minor/Negligible. |
| Green Belt. | - | Moderate/Minor. |
| Other landscape designations. | - | - |
| Visual Amenity | | |

| | | |
|--|--|--|
| 35 residential properties within 1km. | R4 and R5 Construction <u>Major/Moderate</u> . Year 1 <u>Moderate</u> . R6 (financially involved), Construction and Year 1 <u>Moderate</u> to <u>Major/Moderate</u> . R16 Construction <u>Moderate</u> . | R4 and R5 Year 15 Moderate/Minor. R6 (financially involved) Year 15 Moderate. R16 Year 1 Moderate, Year 15 Minor. All other residential properties not significant effects. |
| Settlements within 3.5km. | - | Minor to Negligible. |
| PRoW crossing the Site. | Construction <u>Major/Moderate</u> . | Years 1 and 15 Moderate. |
| Other PRoW within 1km. | - | Negligible to Moderate. |
| Other recreational routes within 3.5km. | - | Negligible. |
| Outdoor sport and recreational locations. | - | Negligible to Moderate/Minor. |
| Minor roads within 1km. | - | Negligible to Moderate. |
| Other routes within 3.5km. | - | Negligible. |
| Cumulative Scenario 1: Cumulative with existing Lower Newton Solar Farm and consented Upper Newton Solar Farm. | | |
| Landscape effects on Settled Plateau Farmland Slopes LCT. | Year 1 and Year 15 <u>Moderate</u> . | - |
| Visual effects on the highest ground between Meir Heath north-west of the Site, the Stone Heath area to the south east, and A50. | - | Negligible |
| Visual effects on East Midlands Railway | - | Moderate/Minor |
| Scenario 2: Cumulative with existing Lower Newton Solar Farm, consented Upper Newton Solar Farm and application Lower Tean Leys Solar Farm. | | |
| Landscape effects on Settled Plateau Farmland Slopes LCT. | - | Year 1 and Year 15 Moderate. |
| Visual effects on the highest ground between Meir Heath north-west of the Site, the Stone Heath area to the south east, and A50. | - | Negligible |
| Visual effects on East Midlands Railway | - | Moderate/Minor |

Conclusion

The proposed Leaford Solar Farm would introduce built development into a large area of countryside. The nature, scale and form of the Development would inevitably result in some important, short and long term, and adverse but reversible effects on the landscape resource and visual amenity of the Site and its surrounds as summarised above. The effects would be limited by a number of factors including the low-lying nature of the solar panels and their arrangement within existing field patterns; the continued grazing land use across the Site; the location of the Site on a north-facing slope and the greater portion of visibility to the less prominent back side of the solar panels; the potential screening properties and landscape benefits of existing and proposed hedges and hedge trees, and other landscape mitigation; and the reversible nature of the Development. The Development has been designed with stand-offs to limit effects on Fulford and its setting, and to reduce effects on the footpaths that cross the Site and Saverley Road.

Significant effects would affect relatively small numbers of receptors located on or within the immediate vicinity of the Site.

Significant landscape effects would be restricted to the fabric and landscape character of the Site itself; and cumulative changes to the key characteristics of Settled Plateau Farmland Slopes LCT. Should the

application Lower Tean Solar Farm be constructed this would change the baseline sufficiently to negate cumulative landscape effects of Leafood Solar Farm however. Significant visual effects would be restricted to residential, recreational and road user receptors crossing the Site itself or located within 500m.

All significant effects, other than those occurring within the Site itself and its immediate vicinity, would be mitigated through landscape measures. Landscape and visual effects would be reversible after the 40-year operational period.

APPENDIX 1 LVIA Methodology

Guidance

The assessment methodology follows the 'Guidelines for Landscape and Visual Impact Assessment' Third Edition (GLVIA3)¹⁹. As recommended by GLVIA3, this is not a generic LVIA methodology, but has been tailored to be proportionate to the nature and location of the development. The methodology also considers the following guidance:

- Landscape Institute/ Institute of Environmental Management and Assessment (2013), 'Guidelines for Landscape and Visual Impact Assessment', 3rd Edition ('GLVIA3')²⁰;
- Landscape Institute (2013), GLVIA3 Statement of Clarification 1/13²¹;
- Landscape Institute (2019), 'Visual Representation of Development Proposals', Technical Guidance Note²²;
- Landscape Institute (2019), Residential Visual Amenity Assessment TGN 2/19²³
- Natural England (2014), 'An Approach to Landscape Character Assessment'²⁴; and
- Natural England (2019), 'An approach to Landscape Sensitivity Assessment'²⁵.

Introduction

The level of landscape and visual effect is determined through consideration of the 'sensitivity' and 'susceptibility' of the landscape or visual receptor to the development and the 'magnitude of change' that would be brought about by the proposed solar panels were they to be constructed.

The time period for the assessment covers the construction of the proposed solar panels and associated infrastructure, to completion of the works and the commencement of its operation.

The assessment has involved a process of iterative design and re-assessment of any remaining, residual effects that could not otherwise be mitigated or 'designed out'. The type of effect is also considered and may be direct or indirect; temporary or permanent (reversible); cumulative; and beneficial, neutral or adverse. The landscape and visual assessment unavoidably involves a combination of both quantitative and qualitative assessment and wherever possible a consensus of professional opinion has been sought through consultation, internal peer review, and the adoption of a systematic, impartial, and professional approach.

Terminology

A description of the terms used in this LVIA are provided below.

Sensitivity of Resource/ Receptor

This is established by considering the value of the receptor and its susceptibility to change. Both these two aspects inform the sensitivity of landscape and visual receptors as set out below. For the purposes of this LVIA, landscape resource sensitivity is classified on a four-point scale of: negligible, low, medium, and high; and visual receptor sensitivity is classified on a three-point scale of: low, medium, and high (refer to Tables A1.4 and A1.9).

¹⁹ Landscape Institute and Institute of Environmental Management and Assessment, 2013, *Guidelines for Landscape and Visual Impact Assessment*, 3rd Edition, Routledge, London.

²⁰ Landscape Institute and Institute of Environmental Management and Assessment, 2013, *Guidelines for Landscape and Visual Impact Assessment*, 3rd Edition, Routledge, London.

²¹ The Landscape Institute (2015) GLVIA3 – Statements of Clarification. Available online at: <https://www.landscapeinstitute.org/technical-resource/glvia3-clarifications/>

²² The Landscape Institute, *Visual Representation of Development Proposals, Technical Guidance Note 06/19*, 17th September 2019. Available online at: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/09/LI_TGN-06-19_Visual_Representation.pdf

²³ Landscape Institute, *Residential Visual Amenity Assessment (RVAA) Technical Guidance Note 02/19* 15th March 2019. Available online at: <https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/03/tgn-02-2019-rvaa.pdf>

²⁴ Natural England (2014), *An Approach to Landscape Character Assessment*. Available online at: <https://www.gov.uk/government/publications/landscape-character-assessments-identify-and-describe-landscape-types> (Accessed on 14/08/2020).

²⁵ Natural England (2019), *An approach to landscape sensitivity assessment*. Available on line at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/817928/landscape-sensitivity-assessment-2019.pdf

Resource / Receptor Value

For the landscape resource this is related to the value that is attached to different landscapes by society. A landscape may be valued by different people for different reasons. For visual receptors this relates to the recognition attached to a particular view (for example in relation to heritage assets or through planning designations) and indicators of value attached to views by visitors (for example through appearances in guidebooks or on tourist maps and the provision of facilities such as car parking and interpretation). For the purposes of the LVIA a landscape resource value is classified on a four-point scale of: negligible, low, medium, and high; and a visual receptor value is classified on a three-point scale of: low, medium, and high (refer to Tables A1.1, A1.2 and A1.8).

Susceptibility to Change

For landscape receptors this means the ability to accommodate a development without undue consequences for the maintenance of the baseline situation and/or achievement of landscape planning policies and strategies.

For visual receptors this is a product of the occupation or activity of people experiencing the view and the extent to which their attention or interest may therefore be focused on the views and visual amenity they experience.

For the purposes of this LVIA, landscape resource susceptibility to change is classified on a three-point scale of: low, medium, and high; and a visual receptor susceptibility is classified on a three-point scale of: low, medium, and high (refer to Tables A1.3 and A1.7).

Magnitude of Change

This is gauged by assessing the type and amount of change predicted to occur in relation to the landscape or visual receptor. Factors influencing the magnitude of change include: size, scale and nature of change; geographical extent; and duration and reversibility of effect as set out in the text and associated tables below.

For the purposes of the LVIA, magnitude of change is classified on a four-point scale of: negligible, small, medium, and large (refer to Table A1.5, A1.6 and A1.10).

Where there is no change to the receptor, or indeed no view of the solar panels, the magnitude of change is assessed as No Change which would result in No Effects.

Level of Effect

The level of landscape and visual effect is gauged by considering the magnitude of change along with the sensitivity of the receptor using professional judgement. For the purposes of the LVIA, level of effect is classified on a six-point scale of: negligible, minor, minor to moderate, moderate, moderate to major and major (Tables A1.11 and A1.12).

In line with best practice guidance set out in GLVIA3, in addition to assessing level, effects are classified as: beneficial, adverse or neutral, as well as direct and indirect. An effect is understood to be neutral when the predicted residual change would, on balance, result in neither an improvement, nor a deterioration of the landscape and visual resource compared with the existing situation.

Baseline

The landscape and visual baseline of the assessment was established by undertaking a detailed desk study, fieldwork, and analysis of findings to create a detailed understanding of the existing landscape and visual context of both the site and surrounding landscape within the study area.

Establishing the landscape baseline included gathering data on the landscape character and how this varies through the study area; together with its geographic extent; and how it is experienced and valued. The desk-based assessment began with a review of policy and guidance including published landscape character assessments of the area and its wider context. This developed an understanding of the baseline environment within which the 3.5km radius study area is located.

The visual baseline establishes the areas from where the new components of the development can be seen, who can see them, the places where those who see them would be affected and the nature of views and visual amenity.

Together the established baseline provides an understanding of the components of the landscape and visual resource that may be affected by the development, which includes the identification of key receptors

and viewpoints which represent such receptors. The baseline is of sufficient detail to enable a well-informed assessment of the likely landscape & visual effects on the baseline conditions of the development.

The desk-based assessment has involved the following key activities:

- Familiarisation with the landscape and visual resources of the area within which the development would be located;
- Identification of landscape and visual resources likely to be significantly affected by the development;
- Preparation of Zone of Theoretical Visibility (ZTV) maps;
- Identification of the location of viewpoints, informed by the ZTV, that were used to inform the assessment of effects of both landscape and visual resources; and
- Identification of suitable study areas for the LVIA.

Viewpoints identified through consultation and during desk studies were ground-truthed through fieldwork and their positions fixed prior to photography being undertaken. Landscape character types (LCTs) were reviewed during fieldwork and the descriptions contained in the published landscape character assessment were augmented where necessary. Landscape and visual receptors were also assessed to ensure they are accurately represented through desk-based assessment.

Assessment of Landscape Effects

In accordance with GLVIA3 the assessment of landscape and visual effects are separate but linked procedures; the landscape is assessed as an environmental resource in its own right, whereas visual effects are assessed on views and visual amenity experienced by people.

Both landscape and visual effects have been assessed at construction stage and during operation of the solar panels. Decommissioning effects are anticipated to be the same or less than those arising from the construction period and have not been assessed.

Sensitivity

As noted above, the sensitivity of landscape receptors is assessed through consideration of their value and susceptibility to change. The process for determining landscape sensitivity is set out below.

Landscape Value

For landscape receptors, value concerns the importance of the landscape resource as evidenced by the presence of landscape designations and professional judgement. Susceptibility is concerned with the landscape's ability to absorb change brought about by the development.

Table A1.1 below illustrates how the value has been determined.

Table A1.1: Landscape Receptor Value

| Value | Recognition | Features / Quality | Condition |
|--------|---|--|---|
| High | Typically, a landscape / feature of international or national recognition e.g. World Heritage Sites, National Parks, Scheduled Monuments and Grade I and II* Listed Buildings, Registered | A strong sense of place with landscape / features worthy of conservation; Absence of detracting features. | A very high-quality landscape / feature; attractive landscape / feature; exceptional |
| Medium | Regional recognition e.g. Conservation Areas; Grade II Listed Buildings, Registered Parks and Gardens | A number of distinguishing features worthy of conservation; evidence of some degradation and occasional detracting features. | Ordinary to good quality landscape / feature with some potential for substitution; a reasonably attractive landscape / feature. |

| | | | |
|------------|---|---|--|
| Low | Undesignated, but locally valued landscape / features | Few landscape features worthy of conservation; evidence of degradation with some detracting features. | Ordinary landscape / feature with high potential for substitution; quality that is fairly commonplace. |
| Negligible | Typically, an undesignated landscape / feature. | No landscape features worthy of conservation; evidence of degradation with many detracting features. | Low quality landscape / feature with very high potential for substitution; limited variety or distinctiveness; commonplace |

The European Landscape Convention²⁶ promotes the need to take account of all landscapes, with less emphasis on the special and more recognition that ordinary landscapes, such as community landscapes also have their own value. The criteria used to assess undesignated (community value) landscapes are set out using Box 5.1 in GLVIA3²⁷, as per Table A1.2 below.

Table A1.2: Factors for Assessing the Value of Undesignated Landscapes

| Factor | Criteria |
|-------------------------------|--|
| Landscape Quality (condition) | A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements. |
| Scenic Quality | The term used to describe landscapes that appeal primarily to the senses (primarily but not wholly the visual senses). |
| Rarity | The presence of rare elements or features in the landscape or the presence of a rare Landscape Character Type. |
| Representativeness | Whether the landscape contains a particular character and/or features or elements which are considered particularly important examples. |
| Conservation interests | The presence of features of wildlife, earth science or archaeological or historical and cultural interest can add to the value of the landscape as well as having value in their own right. |
| Recreation value | Evidence that the landscape is valued for recreational activity where experience of the landscape is important. |
| Perceptual aspects | A landscape may be valued for its perceptual qualities, notably wildness and/or tranquillity. |
| Associations | Some landscapes are associated with particular people, such as artists or writers, or events in history that contribute to perceptions of the natural beauty of the area. |

Susceptibility of the Landscape Receptors to Change

This means the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies²⁸.

Susceptibility of landscape receptors to change has been assessed using the criteria set out in Table A1.3 below.

²⁶ The European Landscape Convention for the UK. Available on line at <https://www.gov.uk/government/publications/european-landscape-convention-guidelines-for-managing-landscapes>

²⁷ Landscape Institute Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, Box 5.1, Page 84.

²⁸ Landscape Institute Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, Paragraph 5.40, Page 88.

Table A1.3: Landscape Receptor Susceptibility to Change

| Susceptibility | Criteria |
|----------------|--|
| High | The landscape receptor is highly susceptible to the development, and a low ability to accommodate the specific proposed change, because the key characteristics of the landscape have no or very limited ability to accommodate the specific proposed change without undue adverse effects taking account of the existing character and quality of the landscape, and/or achievement of relevant planning policies / strategies. |
| Medium | The landscape receptor is moderately susceptible to the development, and a moderate ability to accommodate the specific proposed change, because the relevant characteristics of the landscape have some ability to accommodate it without undue adverse effects, taking account of the existing character and quality of the landscape, and/or achievement of relevant planning policies / strategies. |
| Low | The landscape receptor has low susceptibility to the development, and a high ability to accommodate the specific proposed change, because the relevant characteristics of the landscape are generally able to accommodate it with little, or no, undue consequences for the maintenance of the baseline situation, taking account of the existing character and quality of the landscape. |
| Negligible | Very high ability to accommodate the specific proposed change; no undue consequences for the maintenance of the baseline situation (receptor value) and/or achievement of relevant planning policies / strategies. |

Landscape Sensitivity

GLVIA3 indicates that combining susceptibility and value can be achieved in a number of ways and needs to include professional judgement. However, it is generally accepted that a combination of high susceptibility and high value is likely to result in the highest sensitivity, whereas a low susceptibility and low value is likely to resulting in the lowest level of sensitivity. A summary of the likely characteristics of the different levels of sensitivity is described below in Table A1.4 below. It should be noted that the levels are indicative and in practice there is not a clear distinction between criteria levels.

Table A1.4: Landscape sensitivity criteria

| Landscape Resource Sensitivity | Characteristics |
|--------------------------------|--|
| High | <p>Landscape character, characteristics, and elements where, through consideration of the landscape resource and characteristics, there would generally be a lower landscape capacity or scope for landscape change or positive enhancement, and higher landscape value and quality. Often includes landscapes which are highly valued for their scenic quality, including most statutorily (nationally / internationally designated landscapes).</p> <p>Elements/features that could be described as unique or are nationally scarce.</p> <p>Mature vegetation with provenance such as ancient woodland or mature parkland trees, and/or mature landscape features which are characteristic of and contribute to a sense of place and illustrates time- depth in a landscape and if replaceable, could not be replaced other than in the long term.</p> |
| Medium | <p>Landscape character, characteristics, and elements where, through consideration of the landscape resource and characteristics, there would be a medium landscape capacity or some scope for landscape change. Often includes landscapes of medium landscape value and quality which may be locally designated.</p> <p>Areas that have a positive landscape character but include some areas of alteration/degradation/or erosion of features.</p> <p>Perceptual/aesthetic aspects has some vulnerability to unsympathetic development; and/or features/elements that are locally commonplace; unusual</p> |

| | |
|-----|---|
| | locally but in moderate/poor condition; or mature vegetation that is in moderate/poor condition or readily replicated. |
| Low | <p>Landscape character, characteristics and elements where, through consideration of the landscape resource and characteristics, there would be higher landscape capacity or scope for landscape change or positive enhancement. Usually applies to landscapes with a lower landscape susceptibility or higher landscape capacity for the development</p> <p>Damaged or substantially modified landscapes with few characteristic features of value.</p> <p>Capable of absorbing major change, and landscape elements/features that might be considered to detract from landscape character such as obtrusive man-made features (e.g. power lines, large-scale developments, etc.).</p> |

Magnitude of Landscape Effects

The determination of the magnitude of landscape and visual effects combines an assessment of the size or scale of change likely to be experienced as a result of each effect²⁹, the geographical extent of the area likely to be influenced and the duration and reversibility of effects.

Geographical Extent

The geographical area over which the landscape effects would be felt is also considered. This is dependent upon the nature of the development and the scale of effects upon the receiving landscape; however, in general effects may have an influence at the following scales:

- At the site level, within the development site itself;
- At the level of the immediate setting of the site;
- At the scale of the landscape type or character area within which the development lies; or
- On a larger scale, influencing several landscape types or character areas.

Size or Scale

Judgements are needed about the size or scale of change in the landscape that is likely to be experienced as a result of each effect. GLVIA3 states that 'judgements should, for example, take account of:

- The extent of the existing landscape elements that would be lost, the proportion of the total extent that this represents and the contribution of that element to the character of the landscape – in some cases this may be quantified;
- The degree to which aesthetic and perceptual aspects of the landscape are altered either for example, removal of existing components of the landscape or by addition of new ones; and
- Whether the effect changes the key characteristics of the landscape, which are critical to its distinctive character.'

Duration and Reversibility of the Landscape Effects

Duration and Reversibility are separate but linked considerations. Duration can usually be simply judged on a scale such as:

- Short-term: 0-5 years;
- Medium-term: 5-10 years; and
- Long-term: 10-40 years.

For the purposes of this assessment this development has been assessed as long term.

Reversibility is a judgement about whether or not a development can be removed, and once removed can the landscape / landscape be fully restored. The examples in Table A1.7 below indicate the type of land use and the respective assessment of reversibility defined in GLVIA3. Tables A1.5 and A1.6 set out the criteria used to assess the magnitude of landscape effects. Not all aspects of a criterion need to be met for an evaluation to be given.

²⁹ Guidelines for Landscape and Visual Impact Assessment (page 90)

Table A1.5 Magnitude of Landscape Change: Reversibility

| Category | Description |
|----------------------|--|
| Permanent | Permanent, is irreversible change to the landscape, for example housing development, as it not possible to remove the solar panels and restore the land to the original state. |
| Partially Reversible | Partially Reversible, change to the landscape, where the landscape can be restored to something similar to the landscape that was removed. For example, mineral developments, as it is possible to restore the land to something similar to the original state, but not the same state. |
| Reversible | Reversible, change to the landscape where the landscape can be fully restored. For example, a solar farm development, as it is possible to wholly remove the remove the solar panels and to restore the landscape to the original state. This also includes construction activities which are of temporary nature. |

Overall Magnitude of Landscape Change

The overall magnitude combines size and scale, geographical extent, duration and reversibility as set out in Table A1.6 below.

Table A1.6: The Assessment of Overall Magnitude of Change

| Category | Description |
|----------|---|
| High | <p>A large extent of existing landscape elements would be lost / adjusted, the proportion that this represents within the landscape is considerable and the resultant change to the landscape character resulting from such a loss is large.</p> <p>Large-scale alteration of the aesthetic and perceptual aspects of the landscape such as the removal of existing components of the landscape or by addition of new ones – for example, removal of hedges may change a small-scale, intimate landscape into a large-scale, open one, or introduction of new buildings or tall structures may alter open skylines.</p> <p>The effect changes the key characteristics of the landscape & landscape, which are critical to its distinctive character.</p> <p>The change would affect all of the landscape receptors being assessed, as the development would occupy a large geographical extent, e.g., the change would be on a large-scale, influencing several landscape types or character areas.</p> <p>The effects are either of a long duration, permanent, or irreversible /reversible change to the landscape.</p> |
| Medium | <p>A medium extent of existing landscape elements would be lost / adjusted, the proportion that this represents within the landscape is medium and the resultant change to the landscape character resulting from such a loss is medium.</p> <p>Medium scale alteration of the aesthetic and perceptual aspects of the landscape such as the, removal of existing components of the landscape or by addition of new ones.</p> <p>The effect changes some of the key characteristics of the landscape & landscape, which are critical to its distinctive character.</p> <p>The change would affect a medium extent of the landscape receptors being assessed, as the development would occupy a moderate geographical extent, e.g., at the scale of the landscape type or character area within which the development lies.</p> <p>The effects are either of a long / or medium duration, permanent, or irreversible /reversible change to the landscape.</p> |
| Low | <p>A small extent of existing landscape elements would be lost / adjusted, the proportion that this represents within the landscape is low and the resultant change to the landscape character resulting from such a loss is low.</p> |

| | |
|------------|--|
| | <p>Small-scale alteration of the aesthetic and perceptual aspects of the landscape such as the, removal of existing components of the landscape or by addition of new ones.</p> <p>The effect changes a small number of the key characteristics of the landscape & landscape, which are critical to its distinctive character.</p> <p>The change would affect a small part of the landscape receptors being assessed, as the development would occupy a small geographical extent, e.g., at the level of the immediate setting of the site.</p> <p>The effects are either of a Medium / or short duration and reversible change to the landscape.</p> |
| Negligible | <p>A barely perceptible extent of landscape features and elements of importance to the character of the baseline are lost / adjusted.</p> <p>There is a barely discernible change to aesthetic and / or perceptual attributes of landscape & landscape character and such changes occurs across a very limited geographical area and / or proportion of the landscape receptor.</p> <p>The effect changes a barely discernible number of the key characteristics of the landscape, which are critical to its distinctive character.</p> <p>The change would affect only a negligible part of the landscape receptors being assessed, as the development would occupy a limited geographical extent, e.g., the site level, within the development site itself.</p> <p>The effects are of short duration and reversible.</p> |
| No Change | The proposals would not affect any of the landscape receptors being assessed |

Assessment of Visual Effects

Visual effects are concerned wholly with the effect of the development on views, and the general visual amenity and are defined by the Landscape Institute in GLVIA3 at paragraph 6.1, as follows:

“An assessment of visual effects deals with the effects of change and development on views available to people and their visual amenity. The concern ... is with assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the context and character of views.”

Visual effects are identified for different receptors (people) who will experience the view at their places of residence, during recreational activities, at work, or when travelling through the area. The visual effects may include the following:

- Visual effect: a change to an existing static view, sequential views, or wider visual amenity as a result of development or the loss of particular landscape elements or features already present in the view.
- Cumulative visual effects: the cumulative or incremental visibility of similar types of development may combine to have a cumulative visual effect.

The visual assessment aims to determine from which points the development can be seen in the surrounding landscape; this is known as the visual envelope. Once determined, a series of key representative viewpoints are chosen (i.e. areas within the visual envelope from where it may be possible to see the development from publicly accessible viewpoints), such as residential areas, public open spaces, PRow / public footpaths and roads.

Visual effects relate to changes in available views of the landscape and the effect of those changes on people, including:

- The direct effects of the development on the content and character of views through the intrusion or obstruction and/or the change or loss of existing elements.
- The overall effect on visual amenity, be it degradation or enhancement.

In predicting the effects of the development on the visual receptors from specific viewpoints being assessed, GLVIA3 (para 6.27) states that it is helpful to consider (but not restricted to) the following issues:

- Nature of the view (full, partial or glimpsed);
- Proportion of the development visible (full, most, part or none);
- Distance of the viewpoint from the development and whether it would be the focus of the view or only a small element;
- Whether the view is stationary, transient or sequential; and
- The nature of the changes to the view.

Additionally, the seasonal effects of vegetation are to be considered, in particular the varying degree of screening and filtering of views.

People have different responses to views which are dependent upon context such as the:

- Location;
- Time of day;
- Season; and
- Degree of exposure to views.

Responses to views are also dependent upon the purpose of people being in a particular place such as:

- Recreation;
- Residence;
- Employment; and
- Passing through on roads, rail or other forms of transport.

As people move through the landscape, certain activities or locations may be specifically associated with the experience and enjoyment of the landscape, such as:

- The use of paths such as footpaths, bridleways, byways open to all traffic (BOATs) and National Trails;
- National or local cycle routes; and
- Tourist or scenic routes, and associated viewpoints on land or water.

Evaluating Visual Sensitivity to Change

To determine visual effects both the sensitivity of the visual receptor and the magnitude of change must be considered. Determining visual sensitivity is the combination of susceptibility to change and value of a view. It is considered that a combination of high susceptibility to change and high value is likely to result in the highest sensitivity, whereas a low susceptibility and value is likely to result in the lowest level. The susceptibility to change, value and resultant sensitivity of a visual receptor are broadly categorised based on the following Tables A1.7 and A1.8 below. It should be noted that the levels are indicative and in practice there is not a clear distinction between criteria levels.

The susceptibility of visual receptors to changes in the view and visual amenity is related to activity they are engaged in and the extent to which their attention is focussed on the views and visual amenity at that location. As such those receptors most sensitive to change are likely to include people engaged in outdoor activities where an appreciation of the landscape is the focus or residents in areas where the landscape setting contributes to the setting of the properties.

Conversely, those considered least sensitive to change include (but are not restricted to) people engaged in outdoor sports or recreation where there is no focus on the surrounding landscape/views and people at their place of work where the focus is on the work activity.

See Table A1.7 below for a full description of the criteria used to assess the susceptibility of viewpoints.

Susceptibility of Visual Receptors to Change

The susceptibility of visual receptors to changes in views depends upon:

- The occupation or activity of people experiencing the view at particular locations; and
- The extent to which their attention or interest may therefore be focussed on the views and the visual amenity they experience at particular locations.³⁰

The criteria used to assess the susceptibility of a visual receptor are summarised in Table A1.7 below.

Table A1.7 Visual Receptor Susceptibility to Change

| Susceptibility | Type of Receptor |
|-----------------------|--|
| High | Residents at home. Views from well used public rights of way including strategic footpaths / long distance trails and cycle routes (where the attractive nature of the countryside is a significant factor in the enjoyment of the walk). Visitors along scenic routes and to recognised viewpoints. |

³⁰ Ibid. 1. Paragraph 6.32

| | |
|--------|--|
| | <p>Visitors to protected landscapes or heritage assets where views of the surroundings are an important contributor to the experience.</p> <p>The location, numbers, frequency of use and visual context of the viewpoint would be high.</p> <p>Communities where views contribute to the landscape setting enjoyed by residents in the area.</p> <p>Travellers on road, rail or other transport routes along scenic routes, where the appreciation of the view contributes to the enjoyment and quality of the journey.</p> |
| Medium | <p>Views experienced from boats, public rights of way / footpaths used locally and passing through the landscape and well used footpaths within settlements.</p> <p>Views from places of worship and associated grounds, schools, country parks and golf clubs.</p> <p>Views experienced by users of local roads where there are clear / open views across the landscape and low levels of traffic.</p> <p>The location, numbers, frequency of use and visual context of the viewpoint would be medium.</p> |
| Low | <p>Views experienced from places of work where workers and visitors are concentrating on their day to day activities.</p> <p>Views experienced by on near to motorways, major roads</p> <p>Views experienced by users of the rail network and main roads travelling at speed or local roads where the focus is upon the road ahead owing to traffic conditions and the context / composition of the view.</p> <p>Views experienced from less well used public rights of way which pass through less attractive landscapes or townscape and are not used for enjoyment of the scenery.</p> <p>Views experienced by those playing or spectating at outdoor sports or utilising outdoor sports facilities.</p> <p>The location, numbers, frequency of use and visual context of the viewpoint would be low.</p> |

In making judgements about the value of each view, the assessment should take into account the following:

- Recognition of the value to a particular view, e.g. in relation to heritage assets or planning designations; and
- Indicators of the value attached to views by others, e.g., in guide books, tourist maps, literary references, painting etc.

Table A1.8 below shows a full description of the criteria used to assess the value of the view.

The value attached to views should be made on judgements based on the following:

- Recognition of the value attached to particular views, for example in relation to heritage assets, or through planning designations; and
- Indicators of the value attached to views by visitors, for example through appearances in guidebooks or on tourist maps, provision of facilities for their enjoyment and references to them in literature or art.

The criteria used to assess the value of views are summarised in Table A1.8 below.

Table A1.8 Value Attached to Views

| Value | Criteria |
|--------|--|
| High | Views from and within landscapes / viewpoints of national importance (National Parks, AONBs), highly popular visitor attractions where the view forms an important part of the experience, or heritage assets, or through planning designations such as conservation areas, listed buildings, Parks & Gardens, or with important cultural associations, or where the view is deemed by the assessor to be of a high value. |
| Medium | Views from landscapes / viewpoints of regional/district importance, or visitor attractions at regional or local levels where the view forms part of the experience, or local planning designations, or with local cultural associations, or where the view is deemed by the assessor to be of a medium value. |

| | |
|-----|---|
| Low | Views from landscapes / viewpoints with no designations, and not particularly popular as a viewpoint, and unlikely to be visited specifically to experience the view available, with minimal or no cultural associations, or where the view is deemed by the assessor to be of a low small value. |
|-----|---|

Sensitivity of Visual Receptors

The sensitivity of visual receptors is defined in terms of the relationship between the value of views and the susceptibility of the different viewers to the proposed change. Professional judgements are made on the merit of the view based on the visual receptor, with Table A1.9 below serving as a guide.

Table A1.9 Visual sensitivity criteria

| Value | Criteria |
|--------|---|
| High | <p>A well balanced view containing attractive features and notable for its scenic quality.</p> <p>A view which is an important reason for receptors being there.</p> <p>A view which is experienced by a large number of people and/ or recognized for its qualities.</p> <p>A view with a medium – high susceptibility to change, and experienced by visual receptors of a high sensitivity.</p> |
| Medium | <p>An otherwise attractive view that includes some attractive or discordant features or visual detractors.</p> <p>A view which plays a small part in the reason why a receptor would be there.</p> <p>A view which is locally recognized.</p> <p>A view with a low - medium susceptibility to change, and experienced by visual receptors of a low - medium sensitivity.</p> |
| Low | <p>A view that is unattractive, discordant and/or contains many visual detractors.</p> <p>A view which is unlikely to be part of the receptor's experience.</p> |

Magnitude of Visual Change

The magnitude of change to visual receptors is assessed in terms of the following:

- The scale of the change in the view with respect to the loss or addition of features in the view and changes in its composition, including the proportion of the view occupied by the development;
- The degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements and characteristics in terms of form, scale and mass, line, height, colour and texture; and
- The nature of the view of the development, in terms of the relative amount of time over which it would be experienced and whether views would be full, partial or glimpses.

Table A1.10 below sets out the criteria used to assess the magnitude of visual change. Not all aspects of a criterion need to be met for an evaluation to be given.

Geographical Extent

The geographical extent of the visual change identified at viewpoints is assessed by reference to a combination of the ZTV and field work. The following factors are considered:

The geographical extent of a visual effect reflects:

- The angle of view in relation to the main activity of the receptor;
- The distance of the viewpoint from the solar panels; and
- The extent of the area over which the changes would be visible.

Duration and Reversibility of Visual Change

The following terminology, which considers whether views would be permanent and irreversible or temporary and reversible, is used to describe the duration of the visual change at representative viewpoints:

- Short-term: 0-5 years;
- Medium-term: 5-10 years; and
- Long-term: 10 to 40 years.

For the purposes of this assessment the development has been assessed as long term.

Reversibility is a judgement about whether or not a development can be removed, and once removed can the view be fully restored.

Overall Magnitude of Visual Change

The three factors that contribute to assessment of the magnitude of visual change are combined as shown in Table A1.10.

Table A1.10 Assessment of Magnitude of Visual Change

| Magnitude evaluation | Size, scale and nature | Geographical Extent | Duration & Reversibility |
|-----------------------------|---|---|---|
| High | Occupies an extensive proportion of the view and may even obstruct a significant portion of the view. Views may become the dominant feature. Considerable change to the majority / many existing landscape elements and/or landscape character; fundamental changes the surroundings and baseline to a large extent; very noticeable | Ranging from notable change over extensive area to intensive change over a more limited area. | Long term; permanent / non- reversible or partially reversible. |
| Medium | Occupies much of the view but would not fundamentally change its characteristics. Changes would be immediately visible but not a key feature of the view. Some change to existing landscape elements and /or landscape character; discernible changes the surroundings of a receptor, such that its baseline is partly altered; readily noticeable. | Moderate changes in a localised area. | Medium term; semi-permanent or partially reversible. |
| Low | Occupies a small portion of the view and therefore would not result in a change to the view's composition. Small change to existing landscape elements and/or landscape character; slight, but detectable impacts that do not alter the baseline of the receptor materially not readily noticeable | Minor changes in a localised area. | Short term / temporary; partially reversible or reversible. |
| Negligible | Occupies a small portion of the view and therefore would not result in a change to the view's composition. Small change to existing landscape elements and/or landscape character; slight, but detectable impacts that do not alter the baseline of the receptor materially not readily noticeable | Minor changes in a localised area. | Short term / temporary; partially reversible or reversible. |
| No Change | There are no changes to the existing view. | | |

Level of Effect and Criteria

The level of landscape and visual effect has been assessed based on the sensitivity of the affected resource / receptor, and the magnitude of change caused by the development, as set out for each above in the preceding tables.

The combined sensitivity and magnitude used to determine the level of effect is summarised within Table A1.11 below.

Table A1.11 - Matrix for Determining Level of Effect

| | | Sensitivity (value / importance) | | |
|------------------|---------------|---|----------------|----------------|
| | | High | Medium | Low |
| Magnitude | High | Major | Moderate/Major | Moderate |
| | Medium | Moderate/Major | Moderate | Moderate/Minor |

| | Sensitivity (value / importance) | | |
|------------|----------------------------------|------------------|------------|
| | High | Medium | Low |
| Low | Moderate | Minor/Moderate | Minor |
| Negligible | Minor | Minor/Negligible | Negligible |

It should be noted that the above matrix is intended as a framework for assessment only and that the level of effect will vary depending on the circumstances, the type and scale of development proposed, the baseline context and other factors. The gradations of magnitude of change and level of effect used in the assessment represent a continuum; the assessor has used professional judgement when gauging the level of effect.

Table A1.12 below provides a more detailed summary of the categories of effect.

Table A1.12 - Categories of Landscape and Visual Effect

| Level of Effect | Description of Landscape Effect | Description of Visual Effect |
|-----------------|--|---|
| Major | Considerable change over an extensive area of a highly sensitive landscape, fundamentally affecting the key characteristics and the overall impression of its character. | The development would become a prominent feature and would result in a very noticeable change to an existing highly sensitive and well composed view. |
| Moderate | Small or noticeable change to a highly sensitive landscape or more intensive change to a landscape of medium or low sensitivity, affecting some key characteristics and the overall impression of its character. | The development would introduce some enhancing or detracting features to an existing highly sensitive and well composed view, or would be prominent within a less well composed and less sensitivity view, resulting in a noticeable improvement or deterioration of the existing view. |
| Minor | Small change to a limited area of landscape of high or medium sensitivity or a more widespread area of a less sensitive landscape, affecting few characteristics without altering the overall impression of its character. | Where the development would form a perceptible but not enhancing or detracting feature within a view of high or medium sensitivity or would be a more prominent feature within a poorly composed view of low sensitivity, resulting in a small improvement or deterioration of the existing view. |
| Negligible | No discernible improvement or deterioration to the existing landscape character. | No discernible improvement or deterioration in the existing view. |
| No Effect | The development would not affect the landscape receptor. | The development would not affect the view |

As this report is not subject to the EIA Regulations it is not required that the significance of effect be identified. However, professional judgement has been made as to whether the effects identified are 'significant' or not. As such Major, Moderate/Major effects are considered to be significant. Professional judgement is used to identify if Moderate effects are considered to be significant.

Nature of Effect

The nature of an effect is also assessed. This is dependent on a number of criteria which vary between effects upon the landscape/landscape and effects on visual amenity. Effects are classified as beneficial, neutral or adverse according to the following definitions:

- **Beneficial** effects contribute to the landscape and visual resource through the enhancement of desirable characteristics or the introduction of new, positive attributes. The removal of undesirable

existing elements or characteristics can also be beneficial, as can their replacement with more appropriate components;

- Neutral effects occur where the development neither contributes to nor detracts from the landscape and visual resource or where the effects are so limited that the change is hardly noticeable. A change to the landscape and visual resource is not considered to be adverse simply because it constitutes an alteration to the existing situation; and
- **Adverse** effects are those that detract from or weaken the landscape and visual resource through the introduction of elements that contrast in a detrimental way with the existing characteristics of the landscape and visual resource, or through the removal of elements that are key in its positive characterisation.

The LVIA describes the overall effects on receptors and explains the justification for each assessment. For each assessed effect, a conclusion has been drawn on whether the effect is beneficial, neutral or adverse.

Assessment of Cumulative Effects

The assessment of cumulative effects is essentially the same as for the assessment of the stand-alone landscape and visual effects, in that the level of landscape and visual effect is determined by assessing the combination of sensitivity of the landscape or visual receptor (ranging from high to negligible) and the magnitude of change (ranging from high to zero).

Types of cumulative effect are defined as follows:

- Cumulative Landscape Effects: Where more than one type of development may have an effect on a landscape designation or particular area of landscape character.
- Cumulative Visual Effects: Where the cumulative or incremental visibility of similar types of development combined generate a cumulative visual effect.

These can be further defined as follows:

- Simultaneous or combined: where two or more developments may be viewed from a single fixed viewpoint simultaneously, within the viewer's field of view and without requiring them to turn their head.
- Successive or repetitive: where two or more developments may be viewed from a single viewpoint successively as the viewer turns their head or swivels through 360°.
- Sequential: where a number of developments may be viewed sequentially or repeatedly at increased frequency, from a range of locations when travelling along a route within the study area.

A cumulative landscape or visual effect simply means that more than one type of development is present or visible within the landscape. Other forms of existing development and land use such as woodland and forestry, patterns of agriculture, built form, and settlements already have a cumulative effect on the existing landscape that is already accepted or taken for granted. These features often contribute strongly to the existing character, forming a positive component of the local landscape. Landscapes however, will have a finite capacity for new development, beyond which further change or alteration to the existing landscape character may be unacceptable in landscape terms.

Whilst the CLVIA considers other development, it should not be considered as a substitute for individual LVIA assessment in respect of each of the other developments concerned.

The methodology for cumulative assessment follows that contained within GLVIA3. GLVIA3 (para 7.8) requires that the baseline includes additional changes to the baseline landscapes or visual resources as a result of other development.

Existing similar types of developments are therefore included within the baseline description, and the cumulative effects of consented and application developments are considered separately.

Magnitude of Cumulative Change

Cumulative landscape and visual effects may result from additional changes to the baseline landscape or visual resources, as a result of the development, in conjunction with other developments.

The principle of magnitude of cumulative change thus makes it possible for the development to have a major effect on a particular receptor, while having only a minor cumulative effect in conjunction with other existing developments.

The cumulative landscape and visual magnitude of change is determined with reference to the criteria set out above and the following considerations:

- The number of visible existing and/or potentially visible proposed developments.
- The distance to existing and/or proposed developments.

Significance of Cumulative Effects

As this report is not subject to the EIA Regulations it is not required that the significance of effect be identified. However, professional judgement has been made as to whether the cumulative effects identified are 'significant' or not. As such Major and Major/Moderate effects are considered to be significant. Professional judgement is used to identify if Moderate effects are considered to be significant.

Visual Assessment of Residential Properties

Planning law contains a widely understood principle that individuals (i.e. visual receptors at a single residential property) have no 'right to a view' and that the outlook or view from a private property is a private interest and not therefore a matter for the UK planning system.

However, the planning system also recognises situations where the effects on residential visual amenity are considered as a matter of public interest. This matter has been examined at a number of public inquiries where the key determining issue was not the identification of significant effects on views, but whether a development would have an overbearing effect and/or result in unsatisfactory living conditions, leading to a property being regarded, objectively, as an unattractive (as opposed to a less attractive) place in which to live.

As a consequence, the visual assessment methodology provides for a much more detailed assessment of the closest residential properties. This allows the assessor, and consequently the determining authority, to make a judgement as to whether the residents at these properties would be likely to sustain unsatisfactory living conditions which it would not be in the public interest to create. Reviews of decisions demonstrate that significant or important changes to the views available from a residential property, and its curtilage, are not the decisive consideration.

By way of further clarification, the methodology for assessing the visual effects on views from residential properties allows for two stages of assessment as follows:

- The first stage is to identify those properties where a significant visual effect on a view from the property is likely to occur.
- The second stage is to consider the residential amenity and whether, in terms of the wider public interest, the visual effects would result in unsatisfactory living conditions, leading to a property being regarded, objectively, as an unattractive (as opposed to a less attractive) place in which to live.

A residential property, for the purposes of environmental assessment, should be one that was designed and built/converted for that purpose and currently (at the time of the assessment) remains in a habitable condition, of a safe construction, wind and water tight with appropriate vehicle access, and services (drinking water, sanitation, and power supply). Related buildings such as barns/outbuildings, garage, huts and derelict properties should generally be excluded from the assessment, unless they form part of the curtilage of an existing residence.

The sensitivity of individual residential receptors is assessed as high in each case.

The assessment of residential properties or groups of residential properties in this case has been limited to those properties within 1km of the proposed solar farm, which appear on the Ordnance Survey 1:25,000 scale map. Whilst most of the properties can be viewed at close range from public roads and footpaths, some of these properties are accessed via private or gated roads and due to these access limitations, they have been assessed from the nearest public road or footpath which may be at greater distance from the property. The assessment, in this instance, should therefore be regarded as a 'best estimate' of the likely visual effects.

The assessment has been further supported by aerial and ground level photography as well as map-based data. The assessment takes account of the likely views from the ground floors of properties and main garden areas, but excludes upper floors and other land that may be connected with the property. Relevant information considered as part of the assessment may include, but is not limited to the following:

- Scale of development;
- Number and height of the development;

- The horizontal extent or AOV of the visible array; and
- Separation distance (closest and furthest buildings).
 - Description of property, as far as this can be ascertained:
- Orientation and size of property and whether views from the property towards the development would be direct or oblique;
- Location of principle rooms and main living areas such as living/dining rooms, kitchens and conservatories, as opposed to working areas such as farm buildings and utility areas;
- Location of principle garden areas which may include patios and seating areas as opposed to less well used areas such as paddocks or garages; and
- The effects of any screening by landform, vegetation or nearby built development.
 - Location and context:
- The aspect of the property in terms of the overall use and relationship to the garden areas and surrounding landscape;
- The principle direction of main views and visual amenity; and
- The context and nature of any intervening structures e.g. other existing development, farm buildings or forestry.

Viewpoint Analysis

Viewpoint analysis is used to assist the LVIA and is conducted from selected viewpoints within the study area. The purpose of this is to assess both the level of visual impact for particular receptors and to help guide the design process and focus the landscape and visual assessment.

A range of viewpoints are examined in detail and analysed to determine whether a significant visual effect would occur. By arranging the viewpoints in order of distance it is possible to define a threshold or outer limit beyond which there would be no further significant effects.

The assessment involves visiting each viewpoint location. The fieldwork is conducted in periods of fine weather and good visibility and also considers seasonally reduced leaf cover.

Viewpoint selection followed good practice guidance and in particular paragraphs 6.18 to 6.20 of GLVIA3. The viewpoints chosen were used to aid the description of effects on both landscape and visual resources.

The selection of viewpoints was made on the basis of the following types of publicly accessible viewpoints, as follows:

- Representative viewpoints (for example, representing views of users of a particular footpath);
- Specific viewpoints (for example, a key view from a specific visitor attraction);
- Illustrative viewpoints (chosen to demonstrate a particular effect/specific issue); and
- Any important sequential views, for example, along key transport routes.

For the purposes of the LVIA, all of the viewpoints were taken from publicly accessible land.

Baseline photographic panoramas have been produced for each viewpoint to illustrate the nature of existing views in the direction of the solar panels. A baseline photographic survey has been undertaken using a digital SLR camera in accordance with current good practice guidance³.

The methodology for photography follows GLVIA3 and the Landscape Institute's TGN 06/19 Visual Representation of development proposals.

Detail on the production of the viewpoint visuals is presented in Appendix 4.

APPENDIX 2 Landscape Management Plan

The Landscape Management Plan sets out details of the landscape planting, species and management for the Development. It is accompanied by Figure 19 Landscape and Ecology Management Plan (LEMP) and Figure 20 Landscape and Ecology Management Plan (LEMP) Enlargement. These illustrate existing landscape habitats and features, and proposed trees, hedges and grassland areas.

The tree survey and tree and hedge protection is set out in the Arboricultural Implications Assessment accompanying this planning application.

Detailed species information and management is set out in the Preliminary Ecological Appraisal and Biodiversity Net Gain Report also accompanying this planning application.

The species composition, planting and management of the proposed native species is set out below.

Hedgerows

Choosing Species

Tree and hedgerow planting should be composed of species characteristic of the locality and comprise some fast-establishing species such as Birch and Blackthorn. Climate, altitude and geology should always be considered when choosing plant species for planting.

Buying Hedgerow Stock

Buy plants grown from indigenous, preferably local seeds or root stocks, in order to prevent erosion of the genetic integrity of our native species. Also, indigenous species are more likely to establish successfully.

Bare root whips (plants up to 80cm tall) would establish better than large plants. It is important that the roots of the whips are protected at all times; to ensure this, keep them in plastic bags until the moment of planting. If the whips cannot be planted immediately, temporarily heel them in as quickly as possible (see picture below).



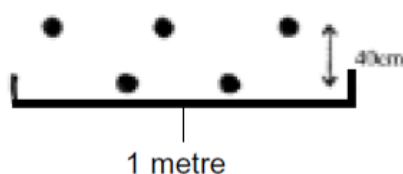
Preparing the site

Dig over your selected site, removing weeds and roots, where possible, and mix in well-rotted manure or other organic matter. If the soil is heavy clay, add some grit and sand to improve drainage further.

Planting the hedgerow

Plant between end of October to end of March when the weather is not freezing and ground is not waterlogged (preferably before January). If the soil is heavy clay it may be best to wait until beginning of March as heavy frost can cause frost heave and expose roots.

Plant a double staggered row hedge, at a width of at least 40cm between each row, with 4 to 6 plants to be planted per metre (see diagram below).



Randomly plant the less numerous species first and fill in the gaps with the main species. Optimally, plant the hedgerow tree species, at whips of 0.8 to 1.5 metres tall, at the same time as the hedgerow plants. It

is advised that the hedgerow trees are brightly labelled to reduce the likelihood of them being cut during flailing. Apply mulch immediately after planting. All plants to be supplied bare root and would be protected with 0.6 m high plastic spiral guards supported by bamboo canes.

If rabbits or hares are a problem, erect rabbit guards. For protection from larger mammals, stock fencing and/or netting are optimal, with stock fencing erected in order to allow the hedgerow to grow at least 1.5m wide.

Holly (*Ilex aquifolium*) and beech (*Fagus sylvatica*) grow well in shade and, therefore plant next to hedgerow trees.

New Hedgerow Management

During the first 2 to 3 years of a hedgerow being planted, it should be cut annually to ensure the development of bushy growth low down in the hedge. Dead plants should also be replaced in autumn, over the first few years.

After the first 2 to 3 years it is optimal to cut on a two or (preferably) a three year cycle, as most tree or shrub flowers are produced on year old twigs, which annual cutting removes, resulting in no flowers, berries or nuts being produced.

It is best to cut in January or February and if this is not feasible, cut as late as possible in autumn. The bird breeding season from 1st March to 31st July should always be avoided.

Where viable, different wildlife likes different sizes and shapes of hedge, so create a variety, though favouring large, dense, infrequently cut hedges.

It is advised that to ensure losses are minimised hedgerows are watered where required in the first summer and weeds controlled by spreading a layer of mulch.

When cutting a hedgerow in rotation, allow the height of the trim to increase a little each time (e.g. 10 cm). If a hedgerow is cut back at the same height repeatedly, after some years a hard knuckle would start to form.

It is important to note that cutting on a 2-3 year cycle can result in faster growing species to consist of thicker shoots than is recommended for an average flail. Therefore, more powerful cutting heads may be required e.g. a shaping saw or flails suitable for cutting greater than 38mm thick shoots.

At Year 5 of operation, it is anticipated that the hedgerows would have reached a height of between 2.3m and 2.5m assuming a conservative growth rate of 0.3m each year. Thereafter, they would be maintained at a height of approximately 3.5m.

Existing Hedgerow Management

In addition to new hedge planting, existing hedgerows within and on the Site boundaries would be managed to a minimum height of approximately 3.5m in order to screen the solar panels in views from the immediate surrounding area. Any gaps within existing hedgerows would also be planted using species selected from the mix identified in Table A2.1 below.

Hedgerow Species Mix

If the hedgerow is a boundary for grazing land, damage can be prevented by planting a dominance of thorny species e.g. hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*) and dog rose (*Rosa canina*). Choice in species composition can also be decided upon by identifying local, rare invertebrates or mammals within the area, via county conservation groups and biological record centres, and planting their food or egg-laying plant e.g. brown hairstreak butterfly lays eggs on blackthorn.

Table A2.1 outlines the species mix and proposed planting percentage for new hedgerow. Hedgerow plants should be planted at a height of 0.8-1.5m with tubes.

Table A2.1: New Hedgerow Proposed Species Mix

| Common name | Latin name | % mix |
|-------------|---------------------------|-------|
| Blackthorn | <i>Prunus spinosa</i> | 25 |
| Dog rose | <i>Rosa canina</i> | 15 |
| Hazel | <i>Corylus avellana</i> | 10 |
| Elder | <i>Sambucus nigra</i> | 5 |
| Hawthorn | <i>Crataegus monogyna</i> | 35 |

| | | |
|--------------|------------------------|---|
| English Oak, | | 5 |
| Beech | <i>Fagus sylvatica</i> | 5 |

Hedgerow Margins (Countryside Hedgerows)

Ideally hedgerow margins should be at least 2m in length and no less than 1m wide. Optimally the management of a margin should be cut in two halves; whereby the closest half to the hedgerow is allowed to grow tussocky, by cutting once every few years, and the other half should be cut annually, after mid-July. This would provide a soft ecotone between the hedgerow and the grassland habitats, and provide cover for wildlife.

Prevent weed growth of the ground flora margin by excluding fertilisers and sowing an appropriate seed mix, which is suited to the site's climate, altitude and geology.

Optimally, create an arable field margin which meets the NERC Act, 2006 Priority Habitat criteria.

Trees

A small group of native species trees are proposed adjacent to the proposed substation and trees are proposed in a number of locations on field boundaries - see Figure 19 Landscape and Ecology Management Plan (LEMP) and Figure 20 Landscape and Ecology Management Plan (LEMP) Enlargement.

New Tree Planting

The tree group should be planted at 2.0m centres as informal groups, with each group containing 5-50 plants of the same species. The proposed species mix is shown in Table A2.2 below. All plants would be supplied bare root and would be protected with 0.6 m high plastic spiral guards supported by bamboo canes.

At Year 5 of operation, it is anticipated that woodland planting should reach heights of between 1-5 m. At Year 15, it is anticipated that woodland planting would have reached heights of at least 5m.

Table A2.2: Proposed Trees Species and Mix

| Common name | Latin name | % mix |
|-------------|---------------------------|-------|
| English oak | <i>Quercus robur</i> | 20 |
| Field Maple | <i>Acer campestre</i> | 10 |
| Beech | <i>Fagus sylvatica</i> | 10 |
| Hawthorn | <i>Crataegus monogyna</i> | 15 |
| Elder | <i>Sambucus nigra</i> | 10 |
| Hazel | <i>Corylus avellana</i> | 10 |
| Holly | <i>Ilex aquifolium</i> | 5 |
| Birch | <i>Betula pendula</i> | 10 |
| Rowan | <i>Sorbus aucuparia</i> | 10 |

Hedge Tree Planting and Management

Hedgerow trees should be planted within new and existing hedges as marked on the LEMP. Trees should be planted as informal linear groups, with each group containing 3-9 plants spaced at 10-20m intervals. Trees would include the mix outlined in the table below and should be planted as light standard trees (6-8 cm girth; 2.5-3.0m high; rootballed) with timber stake supports and protected with 0.6m high plastic or cellulose spiral guards. New trees should be avoided during hedge trimming.

Hedge tree species and mix are set out in Table A2.3.

Table A2.3: Proposed Hedge Trees Species and Mix

| Common name | Latin name | % mix |
|-------------|------------------------|-------|
| English oak | <i>Quercus robur</i> | 30 |
| Field Maple | <i>Acer campestre</i> | 30 |
| Beech | <i>Fagus sylvatica</i> | 30 |
| Holly | <i>Ilex aquifolium</i> | 10 |

To ensure a reasonable level of establishment, newly planted areas of the site should be monitored and maintained for a period of 5 years following completion of planting works associated with each stage of work.

Trees and shrubs should be monitored for any deadwood and crossing branches, and should be pruned accordingly to encourage healthy, strong growth.

Trees with clear stems should be maintained as such with any lower branches removed as required.

Tree stakes and guards should be inspected twice yearly to ensure they are secure and in place and ties should be adjusted as required to allow for growth. The contractor should ensure that the protective guards do not impede the natural growth of the plant.

Plant guards and stakes should be removed and responsibly disposed of away from site once the plant has fully established or at the end of the fifth growing season, whichever is sooner.

A depth of 75 mm of coarse bark mulch should be maintained at the base of each newly planted tree or shrub. This should be topped up on an annual basis or as required.

Should any trees or shrubs planted as part of the landscape scheme, within a period of five years after planting, be removed, die or become seriously damaged or diseased, they are to be replaced in the first available planting season with specimens of the same species and size as those originally planted. All proposed tree planting works should be implemented in the first available planting season (October-March) following the completion of the Development works.

Grassland

The Development would result in the permanent loss of a small amount of semi-improved neutral grassland due to the construction of a substation, tracks, pilings and other permanent ground works. However, it is likely that the majority of the grassland beneath and between the solar panels, as well as grassland beyond the solar panel footprint, would be retained and improved for wildlife.

There would be three types of grassland:

- 1) Enhanced Grassland located within the solar panel fence lines.
- 2) Proposed Grassland located between the solar panel fence lines and the application boundary.
- 3) Wild Flower Grassland located in select area close to PRoW.

The retention and improvement of grassland would be achieved through controlled management aimed at improving the sward structure by sowing seeds into the existing grassland areas and by improving biodiversity through proposed grassland enhancement prescriptions. This change in use is likely to result in the development of a grassland habitat of greater species diversity and greater value to wildlife.

Ground Preparation

Ground preparation should be based on the soil nutrients identified through soil testing. Where nutrient levels are too high to sustain neutral grassland a number of management techniques can be employed including the following:

- Soil inversion by deep ploughing to bring lower nutrient substrate to the surface;
- Use of nursery crops which rapidly remove soil nutrients; and
- Removal of the summer cuttings in July to August.

Soil testing may be undertaken, at the discretion of the appointed contractor/ecologist, following ground preparation to determine other preparatory and management requirements.

Construction

Grassland would be established by directly sowing the appropriate seed mixes into the prepared ground. The following measures would take place as part of, or immediately after, construction.

Construction activities have the potential to disturb the seed bed and so it may be necessary to repeat the pre-construction ground preparation to establish a suitable seed bed. Similarly, if the seedbed lies dormant following construction but before autumn sowing, then further ground preparation may be required.

Timing

Autumn (August to mid-September) sowing is preferred because this favours species that germinate in autumn and species that require a period of cold to break their dormancy before they germinate in spring. Sowing must take place when conditions are warm and moist, and so winter and drought periods must be avoided.

Seed mixes

Growth of the seed mix would need to be encouraged by the microclimate caused by the panels and suitable for sheep such as the mix set out in the table below. The seed mix used should be specified after reinstatement of the site and assessment of ground conditions.

The following seed mixes would be used for the enhanced grassland located around the solar panels and beyond the solar panel enclosures.

Table A2.6: Proposed/Enhanced Grassland Mix

| Common name | Scientific name | % mix |
|---|--------------------------------|-------|
| Cavendish late diploid perennial ryegrass | <i>Lolium perenne</i> | 18% |
| Boyne int diploid perennial ryegrass | <i>Lolium perenne</i> | 18% |
| Maxima 1 Strong creeping red fescue | <i>Festuca Rubra</i> | 20% |
| Pinafore Slender creeping red fescue | <i>Festuca rubra litoralis</i> | 10% |
| Toddington late dip perennial ryegrass | <i>Lolium perenne</i> | 14% |
| Boganis Rough stalk meadow grass | <i>Poa trivialis</i> | 10% |
| Bornito Hard fescue | <i>Festuca Trachyphylla</i> | 10% |

The wild flower seed mix would be selected based on the results of the soil testing, however, at this stage it is envisaged that Emorsgate EM2F – Standard General Purpose Wild Flowers³¹ would be suitable. The mix is diverse and is suitable for sites where soil conditions vary across a site or where soil and site characteristics have not been established before sowing. The seed mix used should be specified after reinstatement of the site and assessment of ground conditions.

Table A2.4: Proposed Wild Flowers Mix

| Common name | Scientific name | % mix |
|---------------------|-----------------------------|-------|
| Yarrow | <i>Achillea millefolium</i> | 1.5 |
| Common Knapweed | <i>Centaurea nigra</i> | 17.5 |
| Wild Carrot | <i>Daucus carota</i> | 6.5 |
| Lady's Bedstraw | <i>Galium verum</i> | 15 |
| Field Scabious | <i>Knautia arvensis</i> | 2.5 |
| Rough Hawkbit | <i>Leontodon hispidus</i> | 1 |
| Oxeye Daisy | <i>Leucanthemum vulgare</i> | 2.5 |
| Bird's-foot Trefoil | <i>Lotus corniculatus</i> | 2.5 |
| Musk Mallow | <i>Malva moschata</i> | 12.5 |
| Ribwort Plantain | <i>Plantago lanceolata</i> | 5 |
| Cowslip | <i>Primula veris</i> | 5 |
| Selfheal | <i>Prunella vulgaris</i> | 8.5 |
| Meadow Buttercup | <i>Ranunculus acris</i> | 7.5 |
| Yellow Rattle | <i>Rhinanthus minor</i> | 12.5 |

Sowing

The seed mix would be sown at a rate of 15 kg/ha (1.5 g/m²). The seed must be surface sown and can be applied by machine or by hand. Once sown, the seed should be lightly pressed into the seedbed by rolling or treading.

Monitoring

³¹ <https://wildseed.co.uk/mixtures/view/24>

An ecologist would visit the site before seed is sown to check that ground conditions are suitable and following seed sowing to check that seed has been sown correctly. Remedial actions would be communicated to the Operator at the earliest opportunity.

After Care: Enhanced Grassland

Sheep grazing is the ideal choice for solar farms, being generally small enough to pass beneath the rows of panels. Given the shading by the solar panels, the grass would feed a reduced density of sheep numbers. The grassland underneath and between the solar panels would be grazed year-round at a low density (3-5 sheep/ha). Patches of pernicious weeds that remain un-grazed would be mechanically controlled through spot maintenance.

After Care: Wild Flower and Proposed Grassland First Year Management

A flush of weeds is to be expected in the first season after sowing and these can be managed by a short period of intensive grazing (see below). It is likely that some pernicious weeds would persist following the ground preparation and can be treated by hand pulling or spot treatment with herbicides.

Once the wildflower seeds have been sowed, the grassland sward height would need to be managed through a meadow cut. To achieve this, and dependent on the vigour of the grassland sward growth, a late summer cut of the wildflower grassland areas would need to take place, with the arisings topped at circa 100 mm to allow developing flowering plants beneath this height to be able grow through and flower and seed later in the growth season. The option of an earlier late spring/summer cut needs to be considered, should the sward growth be particularly vigorous earlier in the growth season. A cut in late September is recommended to ensure the wildflower grassland maximises benefits for pollinator species. It is recommended that arisings are taken away for baling, as feed or for composting.

For the purposes of this plan it is assumed that wildflower grassland would be managed by mowing as a preference rather than grazing.

Monitoring

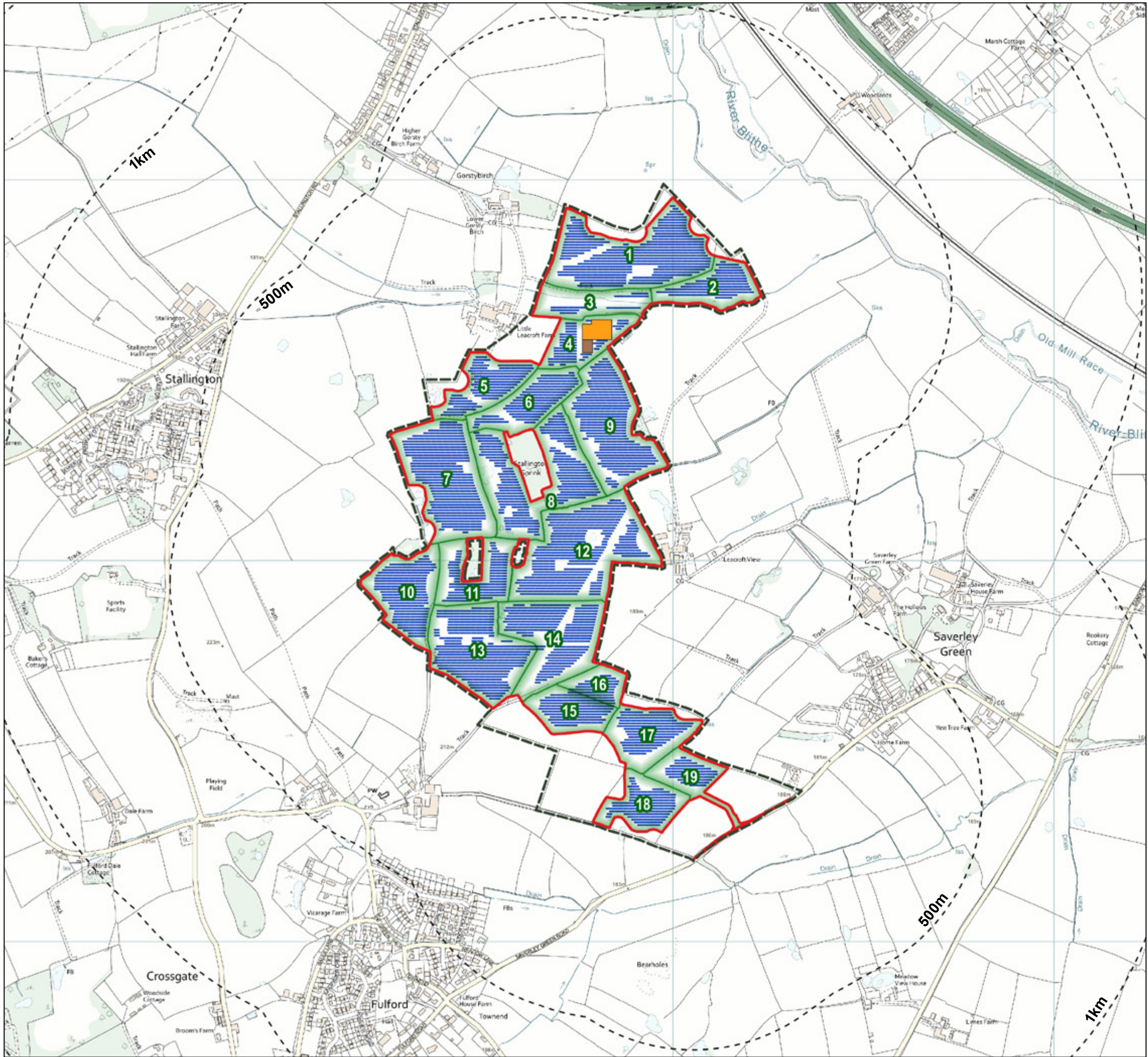
An ecologist would visit the site in spring (May) and summer (July/August) Y1 to check the establishment of seed mix and weeds. Remedial actions would be communicated to the Operator at the earliest opportunity.

Management Once Established

Assuming that the seed mixes have established successfully after Y1, an ecologist would visit the site in late-spring (May) in years 2, 3 and 5 – a critical period for grassland establishment – to assess the success of management.

After 5 years, the wildflower and proposed grassland would continue to be maintained as per requirements described above.

APPENDIX 3 Figures



KEY

- Application Site Boundary
- Distance radii from Application Site Boundary at 500m intervals
- LEMP boundary
- Field boundaries with numbers
- PV panel rows
- Substation Compound
- AC-AC Storage Compound

NOTES:

1) This figure has been produced using the following parameters:
Layout files:
05004-RES-ACCESS BOUND_Updated 2023-11-21 - CTG.shp
312040 05004-RES-LAY-M2-XX-SITE - Panels POLY Rev3 - CTG.shp
312040 05004-RES-LAY-M2-XX-SITE - INFRASTRUCTURE Rev3 - CTG.shp
312040 Field Numbers.shp

2) The layout files have been derived from the following client drawings:
• 05004-RES-LAY-DR-PT-004.dwg (2023-11-17 Rev 3)
• 05004-RES-LAY-DR-PT-005.dwg (2023-11-17 Rev 3)
• 05004-RES-ACCESS BOUND_Updated.dxf (2023-11-21 Rev 4)

0 100 200 300 400 500 m

Leaford Solar Farm
Renewable Energy Systems Ltd.
Landscape and Visual Impact Assessment


Figure 1
Site Location and Context

Mabbett
Safety | Environment | Engineering

| | | | | |
|--|-------------------|-----------|----------------|--------------|
| SHEET A3 | SCALE 1:10,000 | BY CTG | QA CTG / LB | ISSUE 1.0 |
| Map Projection: OSGB36 / British National Grid | | | DEC 2023 | |



KEY

 Application Site Boundary

NOTES:
1) This figure has been produced using the following parameters:
Layout: 05004-RES-ACCESS BOUND_Updated 2023-11-21 - CTG.shp

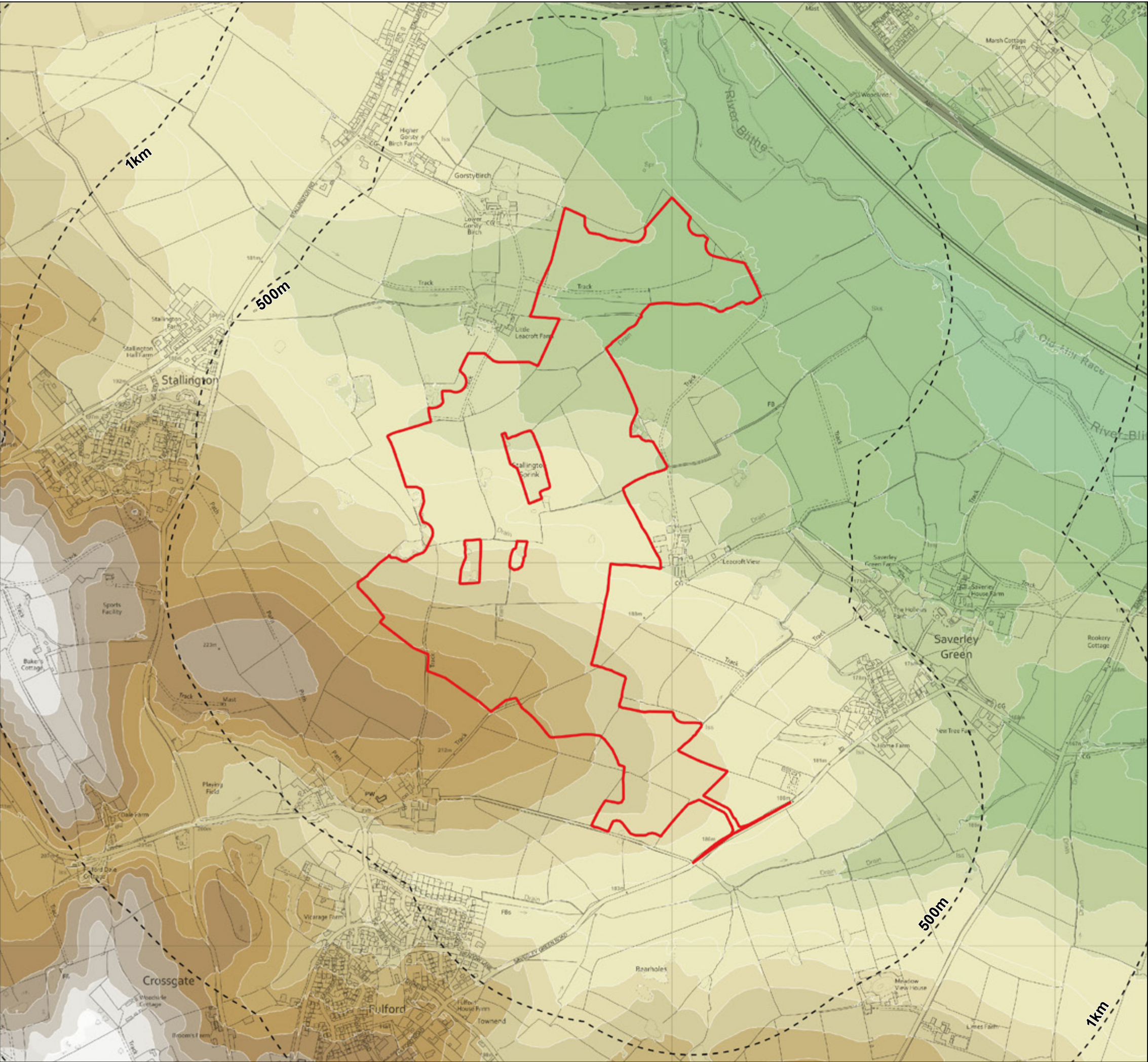


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Landscape and Visual Impact Assessment

Figure 2
Aerial Mapping



| | | | | |
|--|------------------|-----------|----------------|--------------|
| SHEET A3 | SCALE 1:6,500 | BY CTG | QA CTG / LB | ISSUE 1.0 |
| Map Projection: OSGB36 / British National Grid | | | DEC 2023 | |



KEY

- Application Site Boundary
- Distance radii from Application Site Boundary at 500m intervals
- Topographic Elevation above Ordnance Datum (AOD) at 5m intervals
 - Up to 150m
 - 155m
 - 160m
 - 165m
 - 170m
 - 175m
 - 180m
 - 185m
 - 190m
 - 195m
 - 200m
 - 205m
 - 210m
 - 215m
 - 220m
 - 225m
 - 230m
 - 235m
 - 240m
 - 245m
 - greater than 245m

NOTES:
1) This figure has been produced using the following parameters:
Layout: 05004-RES-ACCESS BOUND_Updated 2023-11-21 - CTG.shp
Data used for Landform: Environment Agency 1m LiDAR (2003)
Contour Intervals 5m

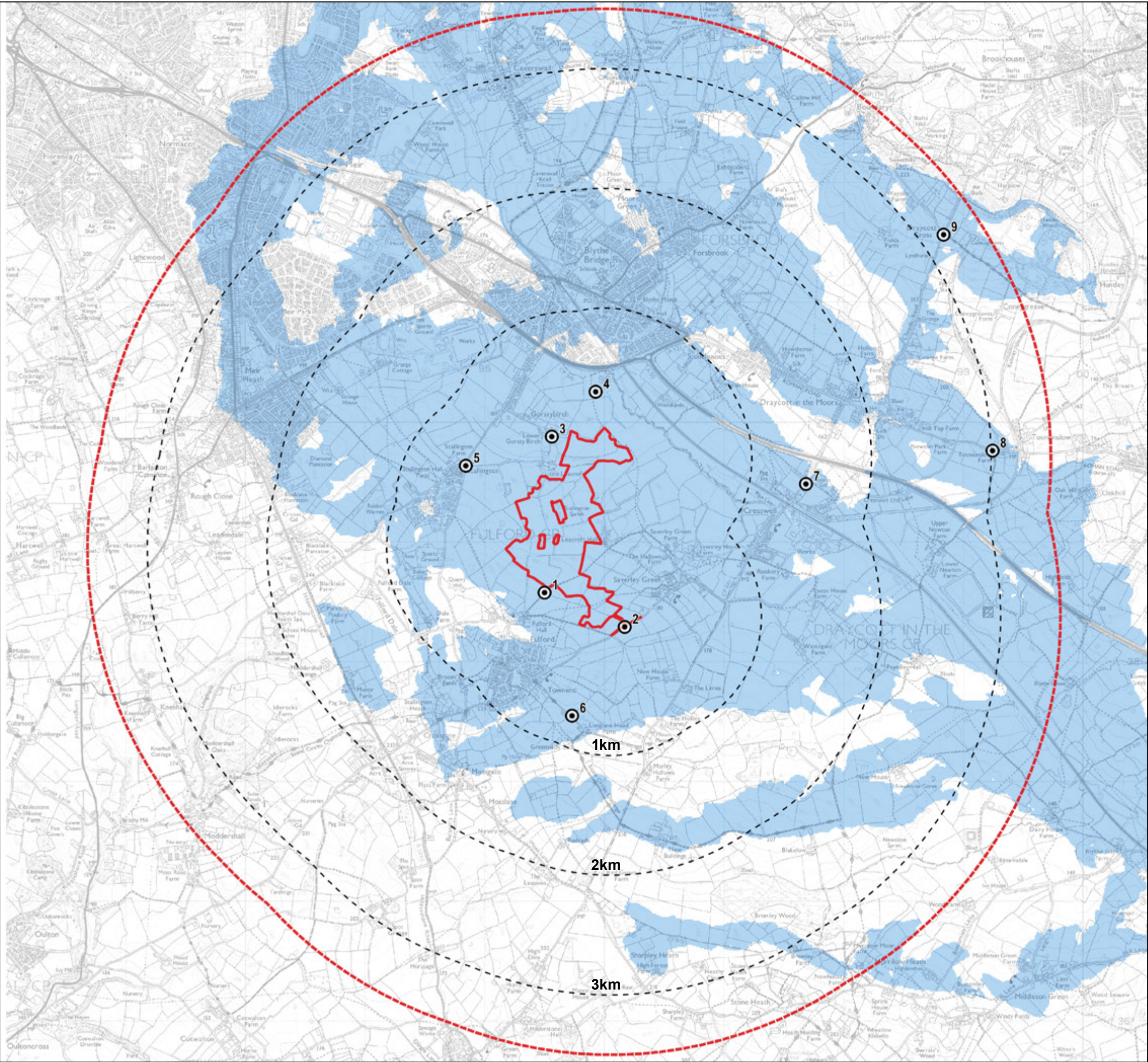


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Figure 3
Topography



| | | | | |
|--|-------------------|-----------|----------------|--------------|
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KEY

- Application Site Boundary
- Distance radii from Application Site Boundary at 1km intervals
- LVIA Study Area
3.5km radius from Application Site Boundary
- Viewpoint locations
 - 1) Footpath between Site and Fulford
 - 2) Saverley Green Road
 - 3) Little Gorsty Birch
 - 4) Footpath to north of the Site
 - 5) Fulford Lane, Stallington
 - 6) Long Lane near Fulford
 - 7) North end of Cresswell
 - 8) Totmonslow
 - 9) Draycott Cross
- Potential visibility of Proposed Development
Proposed Development may be visible

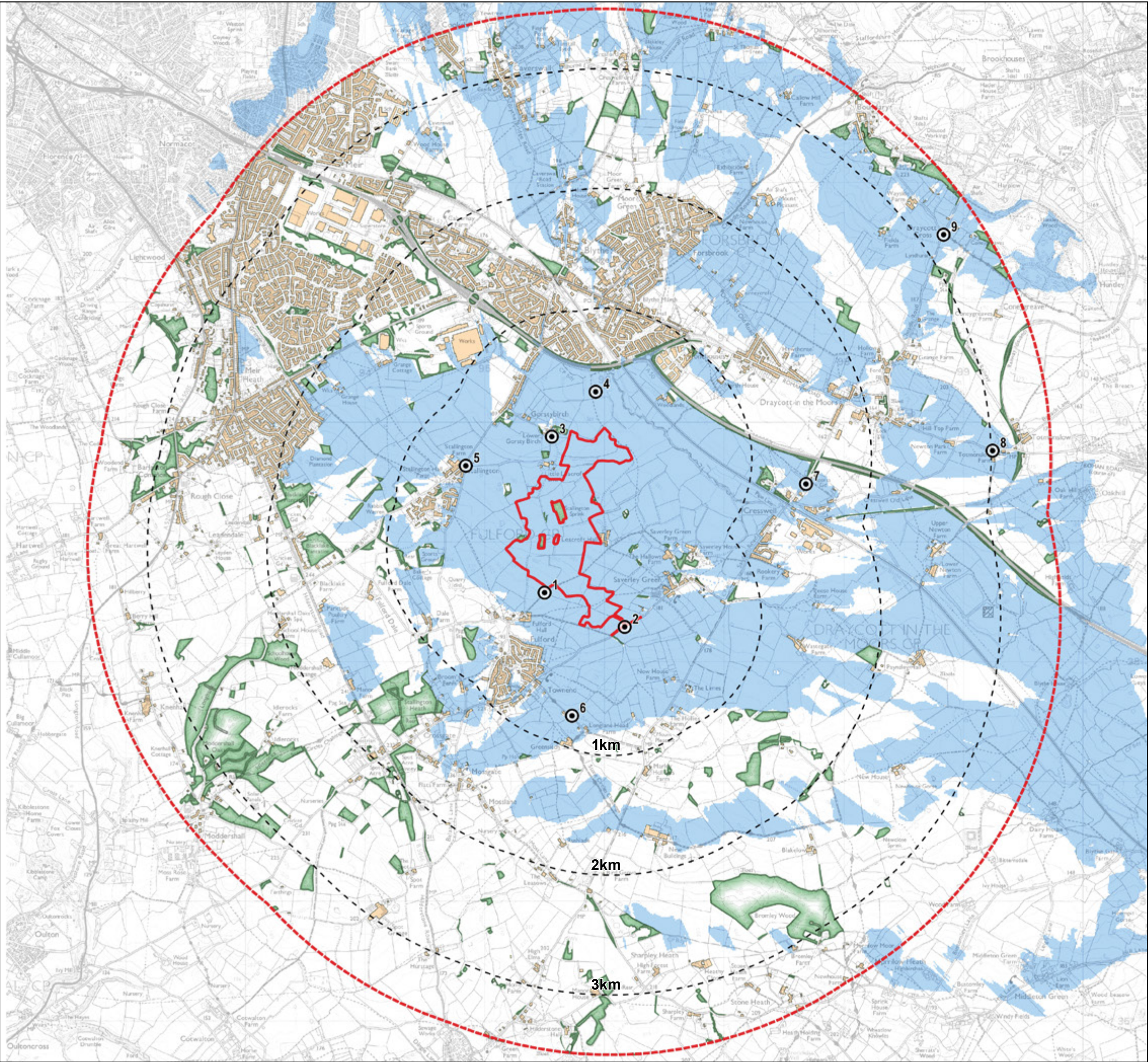
- NOTES:
- This figure has been produced using the following parameters:
Layout: 05004-RES-ACCESS BOUND_Updated 2023-11-21 - CTG.shp
Indicative Panels - 2023-10-31.WFL
Solar panel heights: 3.6m AGL
Viewer's eye height: 2m above ground level
Data used for Landform: OS Terrain 5 (5m grid)
Calculation grid size: 10m
 - The calculation for this visibility map includes for the effects of atmospheric refraction and the Earth's curvature.
 - This visibility map uses a 'bare earth' model of the landform which does not show any effects of visual screening from obstacles such as existing built form and vegetation.

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Figure 4
Zone of Theoretical Visibility (ZTV)
Bareground

Mabbett
Safety | Environment | Engineering

| | | | | |
|--|-------------------|-----------|----------------|--------------|
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| Map Projection: OSGB36 / British National Grid | | | DEC 2023 | |



KEY

Application Site Boundary

Distance radii from Application Site Boundary at 1km intervals

LVIA Study Area
3.5km radius from Application Site Boundary

Viewpoint locations

1) Footpath between Site and Fulford

2) Saverley Green Road

3) Little Gorsty Birch

4) Footpath to north of the Site

5) Fulford Lane, Stallington

6) Long Lane near Fulford

7) North end of Cresswell

8) Totmonslow

9) Draycott Cross

Potential visibility of Proposed Development
Proposed Development may be visible

Built form within Study Area
Vector Map District (Ordnance Survey 2023)
See notes 1 and 3 below for more information

Woodland within Study Area
Vector Map District (Ordnance Survey 2023)
See notes 1 and 3 below for more information

NOTES:

1) This figure has been produced using the following parameters:
Layout: 05004-RES-ACCESS BOUND_Updated 2023-11-21 - CTG.shp
Indicative Panels - 2023-10-31.WFL
Solar panel heights: 3.6m AGL
Viewer's eye height: 2m above ground level
Data used for Landform: OS Terrain 5 (5m grid)
*Built form: 8m AGL
*Woodland: 10m AGL
Calculation grid size: 10m

2) The calculation for this visibility map includes for the effects of atmospheric refraction and the Earth's curvature.

3) This visibility map uses a 'bare earth' model of the landform with additional selected features (see * above), derived from OS Vector Map District data, added to simulate the effects of visual screening from existing built form and vegetation.

01 km 2 km

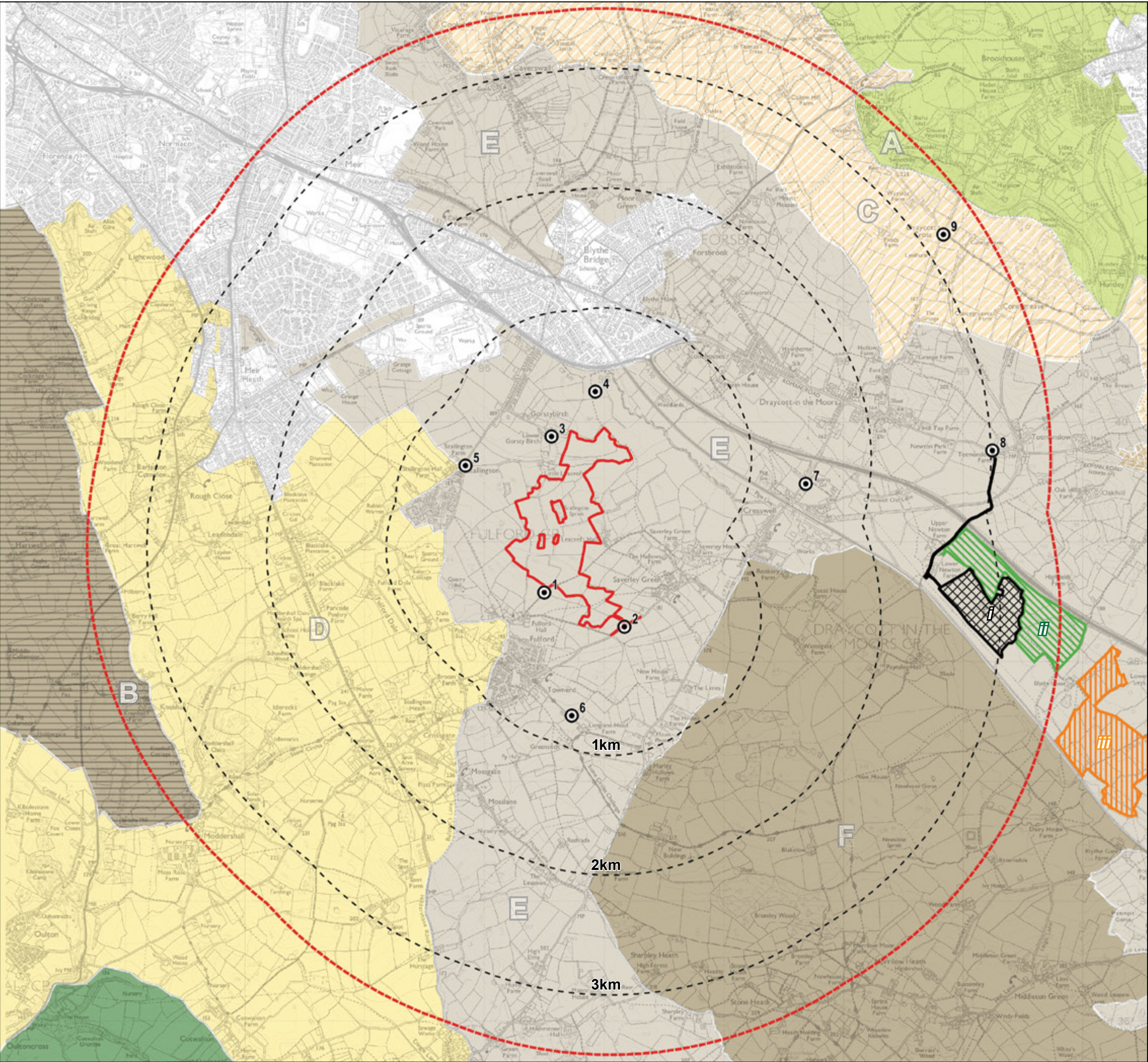
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Renewable Energy Systems Ltd.
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Figure 5
Zone of Theoretical Visibility (ZTV)
with Screening Effects

| | | | | |
|--|-------------------|-----------|----------------|--------------|
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| Map Projection: OSGB36 / British National Grid | | | DEC 2023 | |

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312040-003b LVIA Figs A3.indd



KEY

Application Site Boundary

Distance radii from Application Site Boundary
at 1km intervals

LVIA Study Area
3.5km radius from Application Site Boundary

Viewpoint locations

1) Footpath between Site and Fulford

2) Saverley Green Road

3) Little Gorsty Birch

4) Footpath to north of the Site

5) Fulford Lane, Stallington

6) Long Lane near Fulford

7) North end of Cresswell

8) Totmonslow

9) Draycott Cross

Cumulative Sites

Operational

i) Lower Newton Farm Solar Farm (11.5MW)
Planning application number SMD/2014/0197

Consented

ii) Upper Newton Farm Solar Farm with Battery Storage Facility
Planning application number SMD/2022/0160

Application Submitted

iii) Lower Tean Leys Solar Farm
Planning application number SMD/2023/0059

Landscape Character

Staffordshire County Council Landscape Character 1996 - 2011

A) Ancient slope and valley farmlands

B) Coalfield farmlands

C) Dissected sandstone cloughs and valleys

D) Sandstone hills and heaths

E) Settled plateau farmland slopes

F) Settled plateau farmlands

NOTES:

1) This figure has been produced using the following parameters:
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2) Only those features within the LVIA Study Area have been labelled and listed.

3) Features manually created for this figure are shown out to the LVIA Study Area, whilst those obtained from publicly available data sets have been displayed to the extents of the map area.

0

1

2 km

N

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Landscape and Visual Impact Assessment

Figure 6

Landscape Character and Cumulative Sites

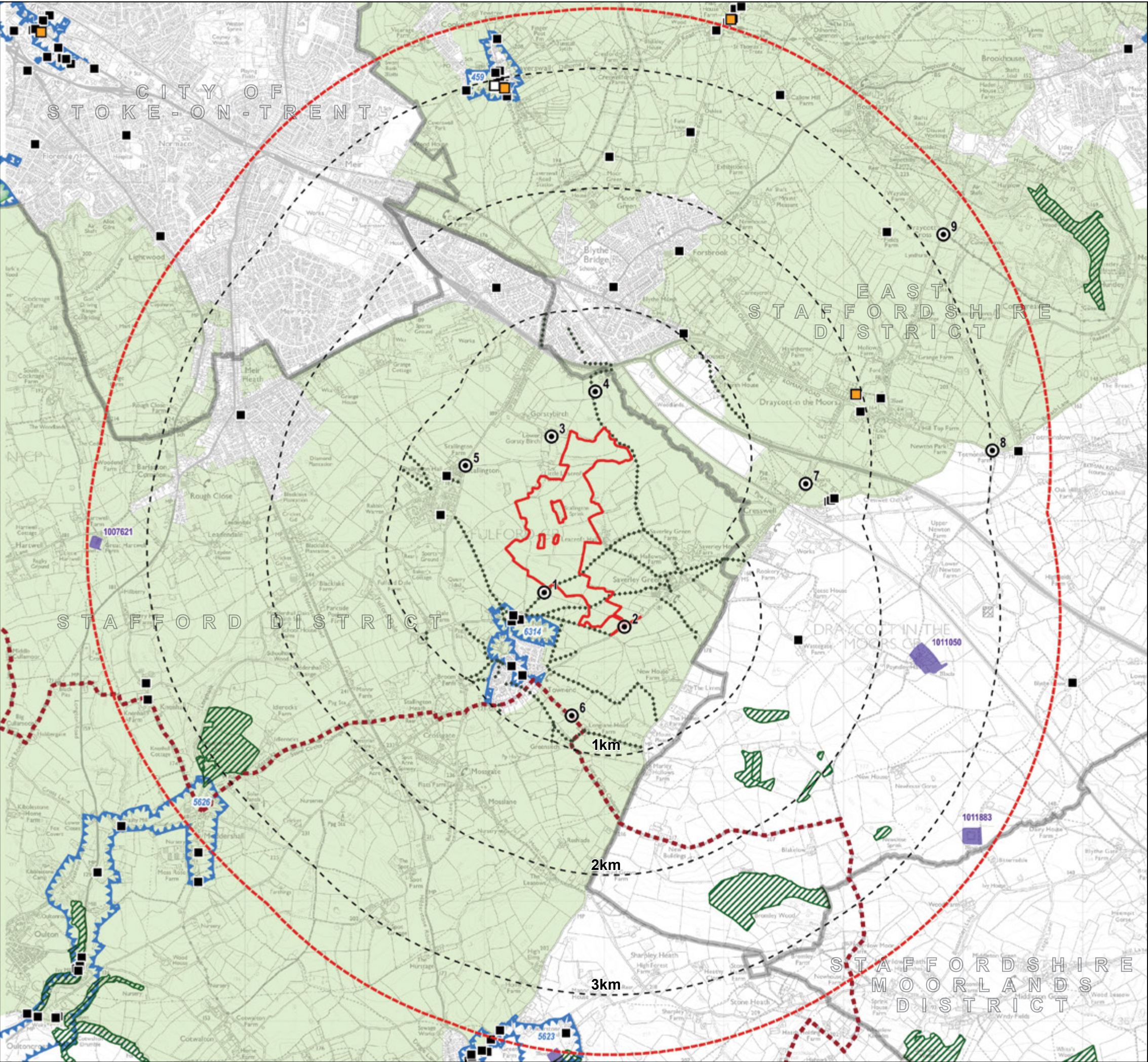
Mabbett

Safety | Environment | Engineering

| | | | | |
|--|-------------------|-----------|----------------|--------------|
| SHEET A3 | SCALE 1:32,000 | BY CTG | QA CTG / LB | ISSUE 1.0 |
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312040-003b LVIA Figs A3.indd



KEY

Application Site Boundary

Distance radii from Application Site Boundary at 1km intervals

LVIA Study Area
3.5km radius from Application Site Boundary

Viewpoint locations
1) Footpath between Site and Fulford
2) Saverley Green Road
3) Little Gorsty Birch
4) Footpath to north of the Site
5) Fulford Lane, Stallington
6) Long Lane near Fulford
7) North end of Cresswell
8) Totmonslow
9) Draycott Cross

Administrative boundary

Greenbelt
UK Government 2023

Public Rights of Way
within 1km radius from Application Site Boundary
Staffordshire Council Council 2018

Long Distance Path - The Stone Circle Challenge

Listed Buildings
Historic England 2023

Grade I

Grade II

Grade II*

Scheduled Monuments
Historic England 2023
1011883) Blithewood moated site
1011050) Paynsley Hall moated site and outer enclosure
1007621) Moated site at Great Hartwell Farm

Conservation Areas
Historic England 2023
459) Caverswall
5623) Hilderstone
5626) Moddershall Valley
6314) Fulford

Ancient Woodland
Natural England 2023

NOTES:

1) This figure has been produced using the following parameters:
Layout: 05004-RES-ACCESS BOUND_Updated 2023-11-21 - CTG.shp

2) Only those features within the LVIA Study Area have been labelled and listed.

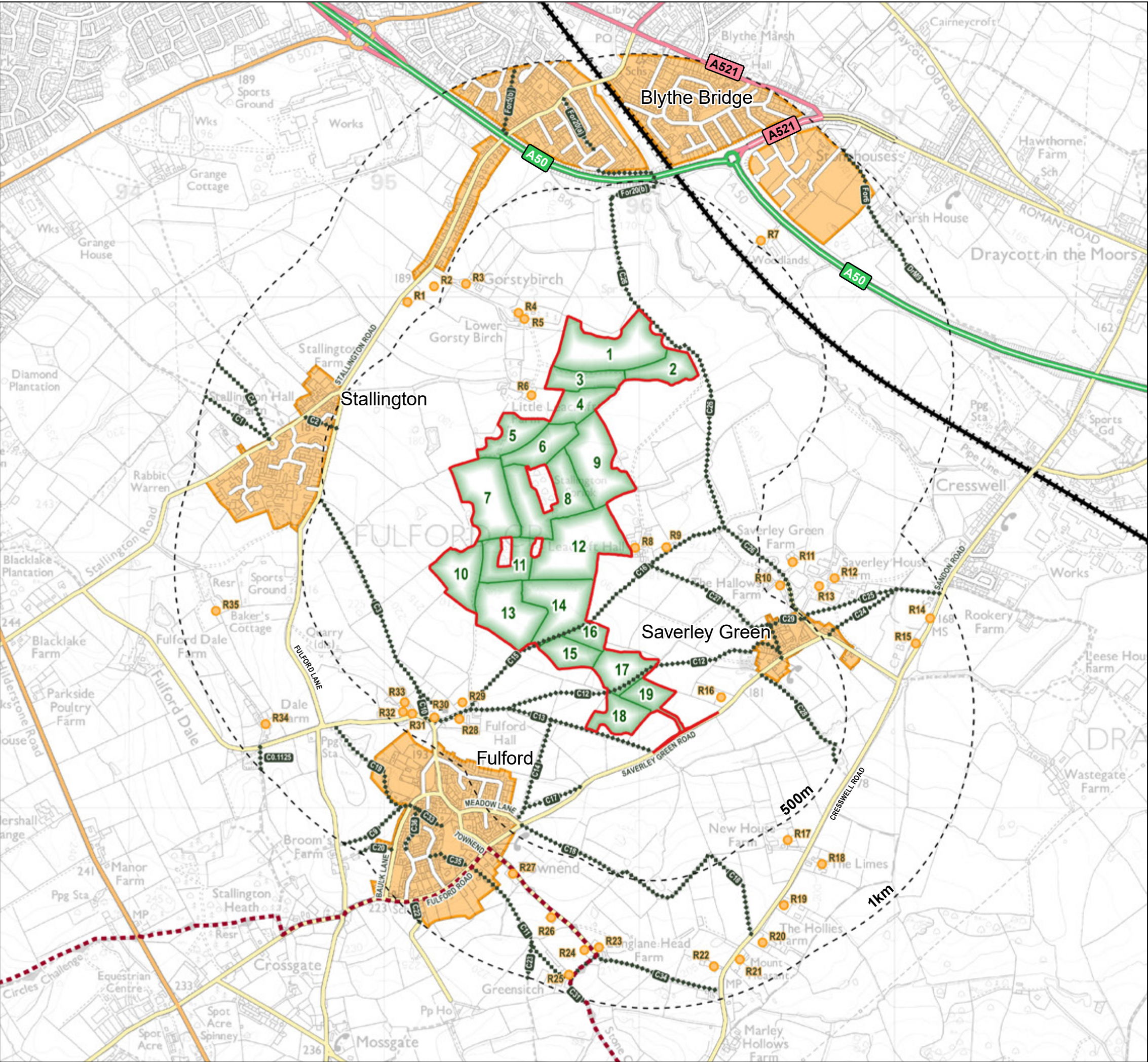
3) Features manually created for this figure are shown out to the LVIA Study Area, whilst those obtained from publicly available data sets have been displayed to the extents of the map area.



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Landscape and Visual Impact Assessment

Figure 7
Landscape and Visual Receptors

| | | | | |
|--|-------------------|-----------|----------------|--------------|
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| Map Projection: OSGB36 / British National Grid | | | DEC 2023 | |



KEY

Application Site Boundary

Distance radii from Application Site Boundary at 500m intervals

Residential properties/areas within 1km radius from Application Site Boundary

Field boundaries with numbers

Public Rights of Way within 1km radius from Application Site Boundary Staffordshire Council Council 2018

Long Distance Path - The Stone Circle Challenge

Transport Network

Railway line

Primary Road

A Road

B Road

Minor Road

Local Street/Private Road - Publicly accessible

- NOTES:**
- 1) This figure has been produced using the following parameters:
Layout: 05004-RES-ACCESS_BOUND_Updated 2023-11-21 - CTG.shp

2) Only those features within the LVIA Study Area have been labelled and listed.

3) Features manually created for this figure are shown out to the LVIA Study Area, whilst those obtained from publicly available data sets have been displayed to the extents of the map area.



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Landscape and Visual Impact Assessment

Figure 8

1km Radius Area

Mabbett

Safety | Environment | Engineering

| | | | | |
|--|-------------------|-----------|----------------|--------------|
| SHEET A3 | SCALE 1:15,000 | BY CTG | QA CTG / LB | ISSUE 1.0 |
| Map Projection: OSGB36 / British National Grid | | | DEC 2023 | |

APPENDIX 4 ZTV and Visualisations Methodology

Guidance and Standards Used

All visibility maps (ZTVs) have been produced in compliance with Visual Representation of Wind Farms Guidance³².

All photography, visualisations (photowires/photomontages/etc) and their graphical presentation has been undertaken in line with Visual Representation of Development Proposals³³ guidance.

The Visual Representation of Development Proposals guidance stresses the requirement for proportionality in the use of visualisations. The guidance suggests that 'Purpose' should be considered in the first instance, followed by 'Context' and 'Development Type, Size, and Scale'.

The combination of these points allows the assessor to make a professional judgement on the resulting visual change associated with the proposed development and an indication of the level of visualisation sophistication that may be required to illustrate the potential change (see Table 1).

Table A4.1: General Approach to Visualisation Sophistication

| 1 Pre-application Consultation | 2 Site Appraisal | 3 Landscape and Visual Appraisal | 4 LVIA | 5 LVIA |
|--|--------------------------|--|--------------|----------------------------|
| Outline Plans, Sections Sketch Proposals | Annotated Photographs | Photowire | Photomontage | Verifiable Photomontage |

The Computer Model

To generate visibility maps and visualisation alignments, a computer model of the proposed development and surrounding area has been produced using Resoft WindFarm© software. This industry standard software is used to create a 3D computer model representing the specified geometry and position of the proposed development and the existing landform (terrain). The Resoft© model includes the entirety of the LVIA Study Area, with all calculations taking account of the effects caused by atmospheric refraction and the Earth's curvature. The Resoft© model does not take account of the screening effects of any intervening objects such as forestry, vegetation, buildings, woodland, or any other non-terrain features unless specifically indicated.

A second computer model is produced with Autodesk 3DS Max© 3D software. This leading software is used to create an appropriately detailed 3D computer model of the proposed development representing the specified geometry and position of the proposed development and the existing landform (terrain). Using the accurate alignment solutions derived from the Resoft© model, images are rendered from 3DS Max© and used to create photowire and photo-realistic photomontage visualisations.

The existing landform information is derived from 1m LiDAR data within the Application Site Boundary, 5m resolution terrain data covering the LVIA Study Area, with 50m resolution terrain data used for more distant topography.

The computer models digitally combine the existing landform with 3D models and detailed information collected in the field to enable the output of accurate visual and graphical information and associated data for presentation as finished figures.

Visibility Maps: Zone of Theoretical Visibility (ZTV)

³² NatureScot's (formerly Scottish Natural Heritage) Visual Representation of Wind Farms Guidance, Version 2.2, 2017.

³³ Landscape Institute's Technical Guidance Note 06/19, Visual Representation of Development Proposals, 2019

Computer generated ZTV maps have been produced using the Resoft WindFarm© computer model. The ZTVs have been generated to assist in viewpoint selection and to indicate the potential influence of the proposed development in the wider landscape. They have been prepared to indicate separately the extent of potential visibility when considering both the 'bare ground' scenario and also with the screening effects of representative settlements or woodland.

The ZTVs indicate areas from which it might be possible to secure views to part or parts of the proposed development; however, the use of the ZTVs needs to be qualified on the following basis:

- There are a number of areas within the ZTV display from which there is potential to view parts of the proposed development, but which comprise agricultural land where the general public do not appear to exercise regular access;
- The ZTV maps do not account for the detailed effects of localised screening and filtering of views as a result of the unique properties of intervening features, such as buildings, trees and hedgerows; and
- The ZTV maps do not account for the likely orientation of a viewer – for example when travelling in a vehicle.

The combined effect of these limitations means that the ZTVs tend to over-estimate the extent of visibility – both in terms of the land area from which the proposed development is visible and also potentially the extent of visibility from a particular viewpoint.

In addition, the accuracy of the ZTVs, which is determined by the resolution (detail) of the landform data itself, has to be considered. The ZTVs are generated using 5m digital terrain data in the Resoft computer model. The resolution of this data cannot accurately represent smaller scale terrain features, which can therefore give rise to inaccuracy in the predicted visibility. This can lead to either underestimation of visibility – e.g., a raised area of ground permitting views over an intervening obstruction – or can lead to overestimation of visibility – such as where a roadside embankment obscures a view. These effects are said to be 'random'; however, over the extent of the ZTV display such errors are not considered material in terms of this assessment.

The use of this type of ZTV is considered good practice and should be considered as a tool to assist in assessing the visibility of the proposed development. The ZTV maps do not present an absolute measure of visibility and do not represent the 'visual impact' of the proposed development.

Viewpoint Assessment and Visualisations

The assessment of landscape and visual effects is carried out from a representative selection of viewpoints which generally illustrate the most open views obtained from representative locations within the study area. The viewpoint assessment is illustrated with reference to illustrative material, comprising photographs, and photomontages. The visualisations have been produced to:

- Give an impression of the proposed development;
- Help illustrate the location and nature of the proposed development; and
- Be used carefully in the field to inform the assessment.

There are a number of limitations which are important to understand when using the visualisations such as:

- A visualisation can never show exactly what the proposed development will look like in reality due to factors such as varying lighting, weather, and seasonal conditions which vary through time and the resolution of the image;
- The images give a reasonable impression of the proposed development and provide landscape and visual context of the views, but can never be 100% accurate;
- A static image cannot convey movement or varying reflection from the sun;
- The viewpoints illustrated are representative of views in the area, but cannot represent visibility at all locations;
- To form the best impression of the impacts of the proposed development these images are best viewed at the viewpoint location shown;
- The images must be printed at the correct size to be viewed properly (see the sizes stated on the individual sheets); and
- The images should be held flat at a comfortable arm's length.

The base photography has been undertaken using a high quality digital SLR camera with full frame sensor and a 50mm fixed focal length lens in combination with a panoramic head equipped tripod at 1.5m height in accordance with current visualisation requirements and accepted good practice. The resulting photos are combined into panoramas using specialist computer software (i.e., Adobe Photoshop; Hugin photo stitching software) and saved as cylindrical projection versions for use in visualisation production.

The Resoft WindFarm© computer model is used to generate a perspective view of the proposed development and surrounding landform from each of the viewpoints.

Detailed viewpoint information as recorded on site (e.g., GPS grid co-ordinates; ground level information; compass bearings; and any other known references; etc) is used to enable the accurate alignment of the photographs with the computer model. A perspective match is achieved between the computer-generated model and the baseline photographs by iteratively adjusting the perspective parameters until all the major features in the image are aligned satisfactorily.

These perspective matches are replicated in 3DS Max©, then rendered at the appropriate Accurate Visual Representation level (AVR) to provide a proportionate level of detail suitable to the project and visualisation type required. The visualisations are completed by combining the rendered images with the baseline photography using photo editing software.

The information shown on the visualisations is generated by the Resoft WindFarm© computer model, derived via GIS software or from mathematical calculations. It should be noted that:

- The distance to the proposed development is based on the 12 digit grid coordinates of the viewpoint;
- All directions noted (bearings) are relative to Grid North (BNG).

The completed base photography, visualisations, and accompanying data are then presented as figures using desktop publishing/graphic design software. Each viewpoint is numbered and illustrated on the accompanying map and visualisation figures.

Visualisation Material Presentation Formats

All of the visualisations are illustrated on 840 x 297mm (½ A1 size) sheets and presented as 90° cylindrical projection panoramas at 100% scale. They provide landscape and visual context only and must be viewed flat at a comfortable arm's length.

In accordance with a proportional approach, the presentation formats used to visualise each viewpoint are selected subject to the level of predicted visibility of the proposed development from each location. The presentation formats are:

- **Baseline Visualisation:** An image illustrating the existing view from the viewpoint location (the baseline photograph);
- **Annotated Photograph (Type 1 visualisation):** An image representing the extent and context of the proposed development. It is a Baseline Visualisation with the position and width of the proposed development marked for reference;
- **Photowire Visualisation (Type 3 visualisation rendered to AVR Level 0):** An image representing the appearance, extent and context of the proposed development. It is a computer generated image showing the proposed development (in blue) superimposed on to the baseline photograph;
- **Photomontage Visualisation (Type 3 visualisation rendered to AVR Level 3):** A photo-realistic image representing the appearance, context, form and degree of visibility of the proposed development. It is a computer generated image showing the proposed development within the baseline photograph.

For selected viewpoints an additional Type 3 Photomontage Visualisation rendered to AVR Level 3 has been provided representing the proposed development at Year 15.

Image Verification

Please note that for technical comparison, the principal distance is noted on each figure to allow an image to be viewed as geometrically correct.

Terrain Data Accuracy

The Ordnance Survey (OS) provides accuracy figures for the following terrain data products expressed statistically as root-mean-square error (RMSE) in metres:

- OS Terrain® 50 (50m resolution): 4m RMSE; and
- OS Terrain® 5 (5m resolution): Urban and major communication routes 1.5m RMSE; Rural 2.5m RMSE; Mountain and moorland 2.5m RMSE.

Assumptions and Limitations

The LVA is based on a proposed design aspiration. Certain assumptions therefore had to be made about the appearance of the proposed development.

Supporting visualisations have been based on the location of the built elements as shown on the figures accompanying the Planning Statement.