

# Landscape and Visual Impact Assessment

Varley Solar Farm

On behalf of RES.

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## Document Management.

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# 1. Introduction

- 1.1. Pegasus Group have been commissioned by RES to prepare a Landscape and Visual Impact Assessment (LVIA) in support of a planning application for the proposed Varley Solar Farm, located on land at Varley Farm, Talbots End, Cromhall, South Gloucestershire, GL12 8AJ ('the site'). The Local Planning Authority (LPA) for the site is South Gloucestershire Council. The site comprises a number of small to medium scale field enclosures of agricultural land, combined in a single development parcel, accessed off Talbots End road to the north, as shown on Figure 1 Site Location and Context Plan.
- 1.2. The proposed development comprises a series of solar modules arranged in strings, associated inverters and substation, access tracks, CCTV cameras, and fencing. The layout of the scheme is illustrated on Figure 2 Landscape Strategy plan.
- 1.3. This LVIA has been prepared by a Chartered Landscape Architect. It reviews and evaluates the baseline condition of the site and its surrounding landscape, and considers opportunities for mitigation measures and whether such measures would be appropriate to the local landscape character.
- 1.4. The main objectives of the LVIA are:
  - To describe the landscape character of the site and its surroundings, evaluate its sensitivity to change and, taking into account the magnitude of change, assess the effect that the proposal would have on the local landscape character.
  - To identify potential visual receptors (i.e., people who would be able to see the development), evaluate their sensitivity to change and, taking into account the magnitude of change, assess the effect that the proposal would have on visual amenity. Residential visual amenity issue is excluded from this LVIA.
  - To identify landscape elements associated with the site, evaluate their sensitivity to change and, taking into account the magnitude of change, assess the effect the proposals would have on landscape elements.
  - To identify mitigation measures and opportunities for landscape character and visual amenity enhancement, in order to mitigate, offset or reduce the predicted adverse effects

## Approach and Methodology

- 1.5. The LVIA assesses the operational stage of the proposed development only, as the construction and decommissioning stages would be of short and temporary duration. Any potential effects brought about by the construction and decommissioning stages are likely to be lower or similar to those assessed post construction. The effects are therefore assessed at Year 1, immediately post-completion, and at Year 5 to take into account proposed mitigation and enhancement measures. The assumed vegetative growth is taken as 0.5m per year based on the advice provided by the farmer who manages the agricultural land within the site.
- 1.6. The scheme has been screened by the Council as a non-EIA development, refer to application no. P22/O18/SCR.



- 1.7. This LVIA has been undertaken with regards to the best practice guidelines within the *Guidelines for Landscape and Visual Impact Assessment Edition 3* (hereafter referred to as *GLVIA3*). The *GLVIA3* states in paragraph 1.17 that when identifying landscape and visual effects there:

***“...is a need for an approach that is in proportion to the scale of the project that is being assessed and the nature of the likely effects. Judgement needs to be exercised at all stages in terms of the scale of investigation that is appropriate and proportional.”<sup>1</sup>***

- 1.8. *GLVIA3* also recognises in paragraph 2.23 that:

***“...professional judgement is a very important part of LVIA. While there is some scope for quantitative measurement of some relatively objective matters much of the assessment must rely on qualitative judgements”<sup>2</sup>***

- 1.9. All effects are taken as adverse unless otherwise stated. This LVIA should be read in conjunction with the supporting Planning Statement and Design and Access Statement (DAS). The detailed methodology for this LVIA provided in Appendix 1. The photographic evidence has been prepared with regard to the Technical Guidance Note O6/19 *Visual Representation of Development Proposals*, published by the Landscape Institute on 17 September 2019.

## Study Area

- 1.10. A preliminary 3km radii study area has been initially identified based on the Ordnance Survey (OS) 1:25,000 map and desktop research, which included a review of the planning policies contained in the Council's *South Gloucestershire Local Plan Core Strategy 2006 – 2027*. These policies are not specifically listed or referred to in this LVIA, but the provided guidance and Council's objectives have been taken into account during the iterative design process, baseline research, and assessment work presented in this LVIA.
- 1.11. Following the preliminary baseline research and site visit, it transpired that a more focused smaller study area would be more appropriate and informative, given the strongly enclosed character of the site and general lack of inter-visibility with the surrounding countryside.

## Consultation

- 1.12. Pegasus engaged with the Council in a formal pre-application discussion (application no. PRE22/O331) with the following comments provided in late July 2022, in relation to the landscape and visual issues:
- Requirement for an LVIA written with regard to the *GLVIA3*, supported by analysis plans and photographic evidence.
  - Viewpoints and subsequent photomontages, selected from representative locations, to be agreed with the Council.

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<sup>1</sup> Paragraph 1.17, Page 9, *GLVIA*, 3<sup>rd</sup> Edition

<sup>2</sup> Paragraph 2.23, Page 21, *GLVIA*, 3<sup>rd</sup> Edition



- Assessment to include visual effects upon the Landscape Character Area (LCA) 5: Wickwar Ridge and Vale.
- Assessment to include effects upon Wickwar Ridge, a Visually important Hillside feature.
- Assessment to consider potential cumulative landscape and visual impact of the proposed development in conjunction with the consented solar scheme at Newlands Farm, Wickwar (application no. P20/24180/F).
- Tree survey and tree protection plan to be provided.
- Any tree loss to be accounted for and replacement planting to be provided based on the requirements of the Council's Trees and Development Sites: Guidance for New Development Supplementary Planning Document.
- Proposed planting, including detailed planting plans, to be based on a tree survey and consider **"...how the local vegetation pattern will be retained/respected and complemented by new mitigation/screen planting to integrate the proposals into their landscape setting, as well as how footpath corridors will be sensitively retained within green corridors of appropriate width and with planted edges/green buffers, and retention of any views looking out to key features in the surrounding landscape retained."**
- Requirement for a landscape and ecological management plan (LEMP).
- Details of all proposed boundary and hard landscaping surfacing treatments that may be required to be provided.

1.13. Pegasus engaged again in early September 2022, following the preliminary site visit, to inform the Council of the LVIA viewpoint selection and photomontages, and to confirm the scope of work and methodology. A plan showing preliminary Screened Zone of Theoretical Visibility (SZTV) and 9 no. of viewpoints had been issued as part of the consultation. The feedback provided by the Landscape Officer, received on 20<sup>th</sup> of September 2022, included the request for:

- Additional viewpoints along the nearby Public Rights of Way (PRoWs) immediately to the south west and south of the site, and to include the eastern edge of Heath End.
- Additional viewpoint along PRoW near Sodam Mill, on the lower slopes of Wicks' Hill, north west of the site.
- Views from the southern edge of Talbot's End and PRoW approaching the site.
- View from PRoW and road to the east of Talbot's End, in close proximity to the site.

1.14. Whilst not all of the additional viewpoints, requested by the Council, have been specifically included in this LVIA, the provided assessment reviews the associated visual receptors and provides succinct yet robust assessment of the predicted change and scale of effects. This is further clarified in Section 5 of this LVIA.



## 2. Description of the Site and Proposals

### Site Context

- 2.1. The site is located on agricultural land located to the south of Talbot's End hamlet, which comprises a number of dwellings and farmsteads located along Talbot End lane. The hamlet can be accessed from the B4058 / Bristol Road and Bibstone to the north via Farleigh Lane. To the west Talbot End lane connects with Townwell, looping back to the B4058 / Bristol Road, which then leads south through Heath End, located some 200m away at its closest point. Cowship Lane, located some 730m to the south of the site, connects the aforementioned B4058 / Bristol Road with the hamlet of West End. West End marks a localised higher ground at approximately 80m Above Ordnance Datum (AOD) with a cluster of mature tree vegetation around The Cliffs located on the upper slopes to the north of the settlement. This elevated landform, reaching maximum 83m AOD, continues north east towards Bibstone and then west, culminating at Wicks' Hill at 92m AOD. As illustrated by Figure 3 Topography and Visual Receptors Plan, the higher ground continues south west as a narrow linear ridge formed by Abbots-side Hill and Baden Hill, reaching approximately 90m AOD.
- 2.2. Collectively this higher ground encloses the site and its immediate environs to the west, north, east, and south east, segregating it from the wider study area, distant Cotswold Area of Outstanding Natural Beauty (AONB) and the M5 corridor. The Cotswolds AONB is located approximately 5km away to the west at its closest point, and is not visible from within the site or its surrounding low lying areas.
- 2.3. Topographically the site and its environs form part of a simple and level vale landscape associated with Ladden Brook, which largely defines the central and southern part of the study area. Whilst the above described higher ground is visible and in certain views forms an attractive backdrop, views are largely controlled by hedgerows and trees that form a key characteristic of this local landscape. This is particularly evident immediately around the site, with the higher ground to the north east of the site and that associated with Wickwar Quarry often screened or heavily obscured by tree canopies and mature hedgerows.
- 2.4. The nearest built form includes dwellings and farmsteads in Talbot's End and Heath End, between 80m and 200m respectively. Except for the aforementioned hamlets and built form along the B4058 / Bristol Road and Cowship Lane the site's immediate surroundings are characterised by open countryside, without any isolated properties.
- 2.5. The operational Wickwar Quarry, adjacent to the site's eastern boundary, however, forms a major detractor in landscape character terms and is identifiable in certain local views. The quarry is accessed from the B4509/ The Dows to the east. The quarry pits, operational and those that have been restored are evident on Figure 1 Site Location and Context Plan, and have beneficial annotated on the site photographs (refer to Figure 5).
- 2.6. Public access across the study area is provided by the aforementioned public highways and PRoWs, which connect the nearby settlements and cross the low lying vale. Two of those PRoWs: OCR/17 and LWR/3 fall within the site. The other nearby and relevant PRoWs, discussed later in Section 5 of this LVIA, include:
  - OCR/13 leading from Bibstone to Brand Wood.

- OCR/14 leading from Bibstone to Hawley's Lane, east of Talbot's End.
- OCR/18, being a northern extension to LWR/3 and then coincides with Lake Lane, leading to the eastern edge of Talbot's End.
- LWR/3 on the higher ground, north of West End.
- LWR/1 and LWR/2 as one descends from West End with the routes continuing towards Heath End as OCR/19.
- OCR/17 on the approach to the site from the B4058 and West End.
- OCR/16, between the B4058 and Talbot's End.

2.7. The existing condition of the site, its character, and limited level of inter-visibility with the wider landscape are illustrated by site photography included as part of the visual assessment (Figure 5 and Figure 6).

## Site

2.8. The site is best described as a strongly enclosed and inconspicuous area, when viewed from the surrounding landscape in close range and medium views. It is characterised by a strong and robust landscape framework with hedgerows and hedgerow trees, and blocks of woodland enclosing the associated field enclosures. This vegetation limits views in and out and creates a strong sense of enclosure and separation from the surrounding landscape. On the approach from Talbot's End, along the proposed access track the site is screened by the intervening hedgerows (see Plate 1 below), and such lack of inter-visibility is likely to be experienced by the majority of residents in the hamlet (refer to Section 5 of this LVIA for detail). Views north from within the site terminate on the vegetation that marks the site's northern edge with heavily restricted views of some of the dwellings in Talbot's End. Wicks' Hill, located to the north west of Talbot's End is obscured by the intervening vegetation and built form in the hamlet (see Plate 2 below).

2.9. Some medium range views to the north east, towards the slightly elevated ridge marked by Brand Wood, do exist and these are largely gained from the northern part of the site. Views east and south east also include the higher ground and spoils associated with the operational Wickwar Quarry (refer to Plate 3 and Plate 4 below). Views south are largely screened by the boundary vegetation with occasional views of the higher ground near West End. Such views, however, are generally restricted to the southern most part of the site (see Plate 5 and Plate 6). Views west include the wooded Abbots-side Hill and Baden Hill, seen at some distance. Whilst elevated, their contribution to the perception of the countryside as understood from within the site is somewhat reduced given the distance and strong landscape framework around the site (see Plate 7 and 8 below).

2.10. With reference to the Tree Survey Plan (prepared by Barton Hyett Associates) the northern edge of the site is delineated by hedgerows H1, H2 and H74, which are approximately 2.5m to 3m in height. The site's eastern edge is marked by hedgerows H8, H75, H29, H30, H39, H41, H42, H44, and H45, which are largely over 3m in height and reaching up to 5.5m. The site's southern edge is marked by hedgerows H46, H49, and H55, with H49 being the lowest measuring approximately 2m, and H46 being the tallest at 4m. The site's south western and western boundaries are delineated by hedgerows H56, H58, H62, H63, H64, H66, H67, H68,



H70, H71, H72, and H73, which are all between 2.5m and 3m in height, according to the Tree Survey Plan. In addition, there are two areas of woodland identified by the arboriculturist, including Lake Copse, both of which measure up to 18m in height and add to the sense of enclosure within the site. With regard to the hedgerow trees and tree groups these are almost wholly dominated by large scale woodland species: Oak and Ash with occasional Willow, Hazel, and Crab Apple. Oaks and Ash trees are mature and tall, reaching well in excess of 10m and up to 18m in height.

- 2.1. With reference to the topographical survey, there are minute changes in the elevation across the site. The eastern and northern edge of the site – part where the solar modules would be located, sits at approximately 61.5m to 61m AOD with the landform sloping west and south to reach approximately 56m AOD in the site's south western corner. Generally speaking, however, the landform across the majority of the site is relatively level at around 58m to 56m AOD.



*Plate 1: View from the proposed access track, near Faith Cottage in Talbot's End, looking across the intervening fields. The site land is screened by the intervening hedgerows.*



*Plate 2: View from Public Footpath OCR/17 in the northern most field of the site (its western edge), looking towards hedgerows H1, H2 and H74, with tree T1 visible next to the existing solar modules.*



*Plate 3: View from Public Footpath OCR/17 in the eastern part of the site, looking east. Brand Wood (woodland) marks the higher ground. The site's eastern perimeter hedgerow H8 2.5m high is visible in the middle ground, through the field gate.*





*Plate 4: View from Public Footpath OCR/17 in the eastern part of the site, looking east / south east, towards the higher ground near Wickwar Quarry and the Quarry facilities. The site's internal hedgerows H14 and H15 (both at 3m high) are visible in the foreground.*



*Plate 5: View from the site's northern most field, looking south. The site's internal hedgerows H69 (3m high) and mature Oak trees T73 and T75 - T77 (13m - 18m high) are visible in the middle ground. Rising landform near West End is seen in the far distance.*





*Plate 6: View from the site's south western part. The site's internal hedgerows H61 (3.5m high) is visible to the left. Hedgerow H59 (3m high) screens the view south. Rising landform near West End is seen in the far distance.*



*Plate 7: View from Public Footpath OCR/17 in the eastern part of the site, looking west, towards the wooded Abbots-side Hill. The site's internal hedgerow H4 (2m high) restrict the view. Offsite trees, along the site's northern boundary screen views.*



*Plate 8: View from the northern most field of the site, looking west towards the wooded Abbots-side Hill – seen in the background. The site’s perimeter hedgerow H73 (3m high) considerably limits views out.*

- 2.12. As evidenced above this mature hedgerow and tree vegetation provide considerable screening, limiting views out and compartmentalising the proposed scheme, such that it does not form a continuous large area of solar modules, but rather as small scale visually discrete yet functionally connected areas. The internal and perimeter hedgerows also block and / or restrict views into the site and disintegrate the overall scale and massing of the proposals when seen in less restricted views. This helps reduce the horizontal visual envelope of the proposals when seen from external views – this is further discussed in Section 5 of this LVIA.
- 2.13. The existing hedgerows are relatively tall and provide reference point for the proposed mitigation measures such as: allowing the new hedgerows and existing lower hedgerows to grow and be managed to achieve greater height and help screen the proposed solar modules completely. Where the existing hedgerows are taller it is envisaged that their height would be maintained as currently present or allowed to develop further in line with good management practice.

## **Proposed Development**

- 2.14. A series of technical drawings explain the layout of the proposed solar panels and associated infrastructure, and this LVIA should be read in conjunction with these plans. Figure 2 Landscape Strategy plan illustrates the general arrangement of the proposed solar modules, associated infrastructure and ancillary facilities, and proposed planting.
- 2.15. The main part of the proposed development would occupy 15 small to medium scale field enclosures, with the proposed access track leading south from Talbots End road. The solar modules and associated infrastructure would be deer-fenced to create one continuous





fence line with two smaller fence enclosures in the northern and southern part of the site (to respect the alignment of the existing PROWs), acknowledging that limited breaches in hedgerow vegetation will occur. The offset between the new fence line and existing vegetation is sufficiently large to avoid damage to Root Protection Zone – refer to Pegasus' Landscape Strategy Plan Figure 2, and create maintenance buffer to facilitate the operation, maintenance and management of the solar farm, maintain existing PROWs, and facilitate the management of sheep grazing beneath the panels.

- 2.16. The site would be secured by deer fencing of standard design with large aperture galvanised mesh stretched on wire and supported by wooden posts of approx. 2m in height. Where access gates are necessary these are envisaged as a single leaf galvanised gates: approximately 2.4m high to match the fence and approximately 5m wide.
- 2.17. The proposal would include a series of solar panels, with a maximum height at the rear of the panels of up to 3.5m, enclosed by deer fencing 2.4m in height, with CCTV cameras (maximum 3.5m high) located along the security fencing. Deer fencing would include mammal gaps: approximately 30cm high and 20cm wide) with gates. The panels would be of fixed orientation and located in rows aligned east to west to represent a coherent and relatively simple layout.
- 2.18. Inverter Substations (9m x 3m x 3m high each) would be located along the internal access tracks, in multiple locations, as illustrated on the Landscape Strategy plan (Figure 2).
- 2.19. The client and DNO substation compound would be located close to the north eastern corner of the site, near Lake Lane. It would be enclosed by palisade fencing of up to 3m in height with double leaf gate – design to match palisade fencing. The compound would have an approximate footprint of 27m x 34m and would be enclosed by palisade fencing of up to 3m in height with CCTV and flood lights. Various control buildings and associated infrastructure would be present within the compound, with the maximum height of the proposed infrastructure being 5.5m – DNO Control Building. The majority of the associated infrastructure would be housed within containers. The Solar Control Building, Resistor, ancillary containers and Transformers would be lower in height with the majority of them slightly taller than the palisade fencing.
- 2.20. The proposed internal access tracks and track from Farleigh Lane to Varley Farm would be approximately 4m wide with the top running surface envisaged as being of permeable material. Tracks would utilise existing gaps in vegetation and/or existing field access points, where possible, and would follow field boundaries where practical.
- 2.21. The site is characterised by a very robust landscape framework with strong boundary hedgerows (with most of them at least 3m high) and hedgerow trees (including multiple mature and tall Oak and Ash trees up to 18m in height – based on the Tree Survey prepared by Barton Hyett Associates Ltd) enclosing the fields. This vegetation restricts views in and out, and creates a relatively strong sense of enclosure across the site with only occasional views towards the close to medium range undulating landscape east and south east of the site. The proposed enhancement of the existing hedgerows and their management at an increased height would further increase the sense of enclosure within the site in the future. Lake Copse, located near the southern part of the site also adds to this sense of enclosure and further compartmentalise the site, helping to reduce the perceived extent of the proposed solar panels.



## Temporary Construction Compound

- 2.22. The proposed construction compound would be located in the northern most field associated with the solar modules, at the point where the new access track enters the main part of the site.
- 2.23. Typically, a temporary construction compound would have a footprint of approximately 60m x 50m and would be enclosed by security fence of up to 2.4m in height. The site facilities, welfare facilities and storage containers would be approximately 2.7m in height and would be the tallest structures within the temporary construction compound.

## Colours and Materials

- 2.24. The proposed development would use a limited palette of both colours and materials that would be typically self-finishing. The photovoltaic panels are designed to absorb the light rather than reflect it and their colour would appear recessive in the landscape. The ancillary units such as inverters and substation compound would be proprietary elements with colours agreed with the Council. This LVIA is based on the assumptions that the colour and finishes of the ancillary facilities would be recessive and dark, to reduce their visibility.

## Mitigation Measures and Enhancements

- 2.25. The proposed layout incorporates a number of built-in mitigation measures:
- Offsets from field boundary vegetation to avoid any impacts on the Root Protection Zones of retained vegetation (field boundary hedgerows and trees), and additional 1m offset from Category A trees, as advised by the team's arboricultural consultant. The relatively wide buffer also provides a generous maintenance zone and helps avoid any long-term management risks, which could result in the need for future tree works.
  - Management and enhancement of all existing field boundary hedgerows to an approximate height of 3.5m, where existing hedgerows are currently lower, and an A-shaped profile to maximise ecological benefits and further reduce any potential to gain views of the proposed development from the surrounding area. Following the field survey, it transpired that the majority of hedgerows are at least 3m high and often taller. Thus, this mitigation measure applicable to lower hedgerows, is considered wholly appropriate to the character of the local area where tall hedgerows are already present within and around the site. The existing hedgerows that are taller than 3.5m will be managed in accordance with good practice and their height would be retained. It is important to note that less rigorously managed hedgerows are more beneficial in terms of ecology and this aspect is also one of the drives for the proposed mitigation planting.
  - Hedgerow tree species to include, where appropriate: Blackthorn, Hawthorn and Hazel. Common species are: (Ash), Crab-apple, Dogwood, Elder, English Oak, Field maple, Guelder Rose, Holly, Spindle, Wayfaring tree, Wild privet, Willow species and Witch elm, as per the Council's published *Trees and development sites Guidance for new developments Supplementary Planning Document* (adopted April 2021).
  - Physical offset from the Public Footpaths that cross the site.

- New hedgerows either side of the retained Public Footpaths within the site to reduce visual effects, with a 4m buffer between the new hedgerows and proposed fence line to allow for maintenance.
- Private views from dwellings to the north of the site managed, increase in hedgerow height with the site access enclosed by a close board timber gate to screen views into the site's interior. This is based on the discussion between RES (the developer) and local residents.

2.26. These refinements, part of the iterative design process, respond to the on-site analysis and preliminary LVIA input.

### **3. Landscape Features and Elements**

3.1. The effects of the proposals on the character of the wider landscape are discussed in detail in section 4. This part of the LVIA analyses the effect of the proposed solar farm on those landscape elements that help characterise the site and provide the structural integrity of its environment.

3.2. Existing landscape elements within and immediately surrounding the site are shown on the Landscape Strategy plan (Figure 2) along with the proposed planting. The tree survey prepared by Barton Hyett Associates Ltd and Preliminary Ecology Report by BSG Ecology have been reviewed to inform the below assessment. The site photography, provided below, illustrates the landscape features present within the site.

#### **Effect upon the Ground Cover Vegetation**

3.3. The proposed development would introduce a new type of development into what is currently an agricultural land with the following habitats recorded by a qualified ecologist modified grassland, other neutral grassland, and cereal crop, which are not Priority Habitats – refer to Phase 1 Habitat Survey in the Preliminary Ecology Report by BSG Ecology.

3.4. The existing ground cover vegetation: including arable cropping, grass margins, and grassland used for grazing and animal fodder production, is considered to be of medium value, being characteristic of the local landscape. This vegetation is considered to be of low susceptibility to development of the type proposed, being ephemeral and replicable elsewhere in the local landscape. The overall sensitivity of the ground cover, as a landscape element, to development of the type proposed is considered to be medium.

3.5. The existing grassland, arable cropping and grass margins that characterise the site would be temporarily removed and/ or disturbed across the majority of the site. Following the completion of the construction stage, the area beneath and between the solar panels would be sown with a suitable grassland mix to benefit biodiversity, refer to the Landscape and Ecology Management Plan prepared by Pegasus Group with input from BSG Ecology, for details. This would be managed as permanent pasture. Grass margins would be sown with a suitable grassland mix, appropriate to the ground condition and soil type, for example Emorsgate EM2F – Standard General Purpose Wildflowers or Emorsgate EM2 – Standard General Purpose Meadow Mixture, or similar approved by a suitably qualified ecologist. In addition, areas of scrub would be introduced in certain areas across the site.

- 3.6. On balance, taking into account the limited physical footprint of the solar modules, proposed tracks and inverters and the limited (albeit long-term) duration of the proposed solar farm, this would result in a low magnitude of change. The effects are therefore considered to be minor adverse and reversible. It is important to note that following the decommissioning of the proposed development, there is potential for the introduced grassland to be retained and appropriately managed, at least in parts, as legacy planting.

## Effect upon Topography

- 3.7. The level and low-lying landform of the site is considered to be uncomplicated and typical of the wider vale landscape, which stretches further south. The site's topography does not form part of the gently rising landform to the east – part of the Wickwar Ridge & Vale, or the slightly more distant undulating hills of the Falfield Vale, located to the west (refer to Section 4 for details). Its value is therefore considered to be medium.
- 3.8. The proposed development would require only very limited changes to the topography of the site, with any ground works largely associated with the construction of building platforms for the inverters and access track, with the solar modules pile being driven into the ground. The susceptibility of the on-site topography to changes arising from development of the type proposed is therefore considered to be low. The overall sensitivity of the site's topography is therefore assessed as medium.
- 3.9. Due to the light footprint of the proposed solar panels and their character, the prevailing ground levels and the perception of the landform would remain as currently experienced. The arrangement of the solar panels would follow the level topography of the site and the panels would be pile driven into the ground and would not require any footings or foundations. Any changes to on-site topography brought about by the construction of the access tracks, the foundations for the ancillary elements, and the fencing would be minimal and highly localised, with the area reinstated to the existing ground levels at the end of the construction stage. There is no need for any flood protection bunds or similar engineering features that would result in more substantial changes to the existing ground contours within the site. The magnitude of change is therefore assessed as negligible. With medium sensitivity, this would result in negligible neutral effects.

## Effect upon Tree and Hedge Resource

- 3.10. The Tree Survey, prepared by Barton Hyett Associates Ltd, has assessed the tree and hedgerow resource within the site as being of high to moderate quality, from an arboricultural point of view with one tree along the site's northern boundary identified as ancient or veteran tree, as promoted by The Ancient Tree Forum (ATF) and the Woodland Trust. Ancient and veteran trees are of particular importance as recognised in the Council's published *Trees and development sites Guidance for new developments Supplementary Planning Document* (adopted April 2021):

***"... veteran trees are a finite resource within South Gloucestershire. Government policy is increasingly supportive of absolute protection of ancient woodland and ancient trees. In accordance with the National Planning Policy Framework (NPPF), planning permission will be refused for developments resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland (Para 118)."***



- 3.11. None of the trees within the site's boundaries are part of a designed or designated landscape. Hedgerows and hedgerow trees/trees represent a traditional but typical field boundary treatment which is present across the local landscape. The value of veteran and ancient trees within the site is therefore considered to be high with the remaining tree and hedgerow vegetation considered to be of medium value.
- 3.12. In terms of susceptibility of hedgerow vegetation this is considered to be medium to the proposals with this type of vegetation requiring some time to mature and establish as a landscape element. Trees, as a landscape feature are generally more difficult to replace and require a longer time to establish, thus are judged to be of high susceptibility.
- 3.13. The overall sensitivity of the onsite hedgerow resource is therefore assessed as medium, while the sensitivity of on-site trees, especially the various Category A and veteran trees, is assessed as high.
- 3.14. The proposed development has been designed to minimise trees and hedgerow removal by making use of the existing gaps in hedgerows where access tracks, fence lines and other aspects of the site infrastructure are required to cross through hedgerows. Based on the Landscape Strategy plan (Figure 2) it transpires that the proposed development would bring about a considerable net gain in the site's hedgerow resource with additional hedgerows proposed along the PRowS that cross the site – total of approximately 1060m. The increase in the resource would result in a high magnitude of change, and major beneficial effect upon the hedgerows and moderate beneficial change upon the tree resource within the site.

## **Public Rights of Way (PRowS)**

- 3.15. In terms of direct physical effects, Public Footpath OCR/17, which crosses the northern part of the site and Public Footpath OCR/18, which skirts its south eastern edge are the only two relevant features.
- 3.16. Both PRowS would be retained entirely along their existing alignments. Except for one location, where Public Footpath OCR/17 would cross the proposed access track, there would be no change to the physical nature of the route after the end of the construction phase. None of the PRowS that abut or lie in close proximity to the site would be affected either and the routes would continue to provide access across the local area.
- 3.17. The character of the two PRowS would change from a route passing through open countryside to one passing through a solar farm, with solar panels and other infrastructure visible close to but offset from the route. The enhancement, management and growth of the proposed hedgerows would over time reduce the visibility of the solar panels and other infrastructure in some views, but would also reduce the length of some views, creating a stronger sense of enclosure. This is discussed in detail in Section 5 of this LVIA.
- 3.18. Other routes within the surrounding area would not be directly affected by the Proposed Development. Effects on visual amenity as experienced from the local rights of way network is considered in Section 5 of this LVIA.

## **Effect upon Water Features**

- 3.19. The site visit and analysis of OS maps revealed a number of small field ditches and ponds located in various locations throughout the site and within the wider surrounding landscape.





Their locations have also been confirmed in the Preliminary Ecology Appraisal and illustrated on the Phase 1 Habitat Survey.

- 3.20. The Ecology Report identifies such features as Habitats of Principal Importance as they **“...provide an abundant aquatic habitat resource with connectivity between ponds provided by the network of hedgerows within which the ponds are either sited or lie in close proximity to. As such, ponds within the survey Site are assessed to be of moderate to high ecological value.”** As part of the proposals some of the existing ponds would be enhanced, in terms of ecology, with a small scale pond added in the south eastern part of the site.
- 3.21. The proposed development has been designed to allow a separation buffer of approximately 5m between these features and proposed infrastructure. Therefore, there would be no adverse effect on waterbodies and watercourses present within the site.

## Summary of Effects on Landscape Features and Elements

- 3.22. The proposed development would have:
- minor adverse effect upon the groundcover vegetation of the site.
  - negligible neutral effect on the topography of the site.
  - major beneficial effect on the hedgerow resource within the site.
  - no physical direct effects on the PRowS within or abutting the site.
  - no adverse physical direct effect on water features as landscape features.

## 4. Landscape Character

- 4.1. This section seeks to establish how the proposed development would potentially affect the character of the local landscape. The effects on landscape character consider how the introduction of new landscape elements and built form physically alter the landform, landcover, landscape pattern, and perceptual attributes of the site or how visibility of the proposals changes the way in which landscape character is perceived. Landscape character is defined in GLVIA3 as the:

***“Distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.”<sup>3</sup>***

### Designated Landscapes

- 4.2. As previously noted, the site lies outside and is not adjacent to any areas statutory designated for their natural beauty or nature conservation interest, therefore does not attract the highest level of protection and is not regarded as a ‘valued’ landscape in the context of the National Planning Policy Framework (NPPF). The Cotswolds AONB is located

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<sup>3</sup> GLVIA3, Glossary, page 157.

approximately 5km to the west and there is a distinct lack of any inter-visibility with this statutory protected landscape.

4.3. The nearest areas covered by Local Plan policies and shown on the Council’s interactive Policies Map is Brand Wood – Site of Nature conservation Interest, located some 600m to the north east, and Stone Quarry – Regionally Important Geological Site, located some 650m to the west; both subject to Policy PSP19 of the Development Plan.

4.4. The adopted *South Gloucestershire Local Plan Core Strategy 2006 – 2027* identifies ‘Visually Important Hillside’ and the Council in their pre-application advice PRE22/O331 (dated 26<sup>th</sup> of July 2022) stated that:

***“The visual impact (...) will need to be considered , together with that on Wickwar Ridge itself, which is a Visually important Hillside feature (see Policy CS2 diagram, and LCA SPD)”***

4.5. Policy CS2, however, is concerned with Green Infrastructure rather than natural beauty or visual and perpetual qualities of South Gloucestershire landscape, and does not specifically mention ‘Visually Important Hillside’. The *Core Strategy* does not refer to ‘Visually Important Hillside’ as a local landscape designation and this feature is not covered by any other policy that would relate to design, natural beauty or landscape character. The Council’s *Policies, Sites and Places Plan June 2016*, and its Policy PSP2 ‘Landscape’, does not refer to ‘Visually Important Hillside’ either.

4.6. Most importantly, the ‘Key – Strategic Green Infrastructure Network Figure 1’ of the *Core Strategy* (see Plate 1 below) illustrates that the ‘Visually Important Hillside’ associated with Charfield slopes north and eastwards thus away from the site – also refer to the LVIA Figure 1. The ‘Visually Important Hillside’ associated with Wickwar Ridge is located further south and slopes west to south west. It does not extend across the higher ground around West End, which segregated it from the site and its environs. This change in levels and lack of any physical relationship and very limited theoretical visibility between the site and these ‘Visually Important Hillside’ are illustrated by the Topography Plan (Figure 3) and Screened Zone of Theoretical Visibility and Viewpoint Locations Plan (Figure 4). For that reason, the ‘Visually Important Hillside’ are not considered further in this LVIA.

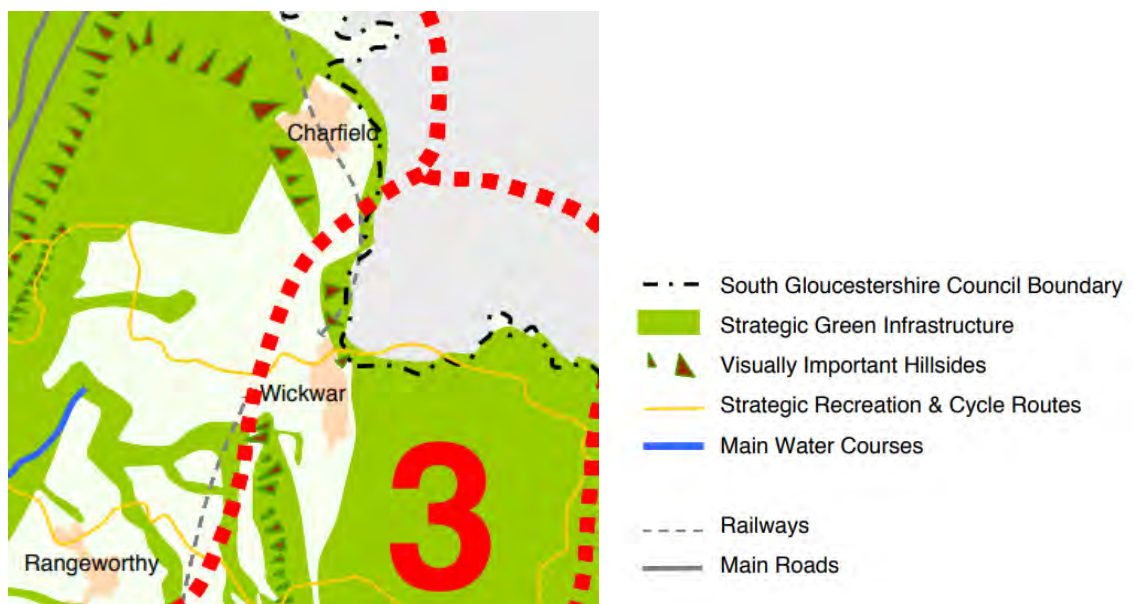


Plate 9: Extract from Core Strategy, 'Key – Strategic Green Infrastructure Network Figure 1'.  
Site not identified due to scale.

## National Character Areas

### NCA118: Bristol, Avon Valleys and Ridges

4.7. Natural England has identified 159 geographical areas of similar landscape character known as National Character Areas (NCAs). This mapping, sometimes described as 'The Character of England Map', provides a description of landscape character at the national scale. The site is located within NCA118: Bristol, Avon Valleys and Ridges.<sup>4</sup> Relevant key characteristics of the NCA are described as:

- *“Low-lying, shallow vales that contrast sharply with high, open downland ridges as the varied landform reflects the complex underlying geology, comprised of Carboniferous limestones with sandstones, silts and conglomerates, together with muds, clays and alluvium (...)*
- *A wide range of soil types, from brown earths on Limestone outcrops to poorly draining gleys on clays, which reflects the underlying influence of the complex geology.*
- *The most extensive areas of woodland lie between Congresbury and the Avon Gorge and on the Failand Ridge. These are internationally significant, containing rare endemic whitebeam species. Elsewhere, woodlands are smaller and fragmented and mainly confined to steeper land; the majority are broadleaf.*
- *Agriculture is predominantly livestock rearing, with arable in the flatter land to the north-east, with larger field sizes and infrequent hedgerow trees. Valleys and steeper slopes in the south-east tend to have irregular fields and overgrown, species-rich hedges.*
- *A diverse landscape important for greater and lesser horseshoe bats. Grasslands of high nature conservation interest remain on the wetter valley bottoms and dry downland slopes. Chew Valley Lake Special Protection Area (SPA) and Blagdon Lake Site of Special Scientific Interest (SSSI) support large numbers of wildfowl, plants and invertebrates, and are surrounded by species-rich lowland meadow.*
- *A long, historic timeline, with important fossil features visible in geological exposures, Neolithic long barrows and stone circles, iron-age hill forts and historic associations with Bristol's port and parkland creating important landscape features.*
- *Settlements dating from the medieval period, clustered around springheads of the Cotswold scarp or along the springline of the Mendips. In the vales they are scattered, linked by a complex network of lanes, with linear mining villages*

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<sup>4</sup> Natural England, NCA 118 Bristol, Avon Valleys and Ridges  
<http://publications.naturalengland.org.uk/publication/4646942?category=587130>

*superimposed. Settlement becomes especially dense in the southeast, with many villages enlarged as commuter settlements.*

- *Older village buildings, gentry houses and mansions of local ashlar, which includes pale yellow Jurassic oolitic limestones and grey Carboniferous and Lias limestones. Red or brown sandstone is used in the north, and Pennant Sandstone at Nailsea 'Flats' in the south-west."*

4.8. It is considered that whilst the NCAs provide a national spatial framework, the scale of the mapping and information is of limited use at the local scale.

## District Landscape Character

### South Gloucestershire Landscape Character Assessment

4.9. The *South Gloucestershire Landscape Character Assessment* Supplementary Planning Document (SPD)<sup>5</sup> was revised and updated in 2014. The site lies within the northern most part of the Landscape Character Area (LCA) 8 Yate Vale and within the Landscape Character Type (LCT) D Shallow Vale (extract from the published *South Gloucestershire Landscape Character Assessment* SPD is included in Appendix 2 for reference) . Key characteristics of the LCA 8 Yate Vale are quoted below:

- *"Gently sloping vale of medium sized pasture and arable fields, very irregular shaped to the north, with small to medium regular shaped fields between and around Engine Common and Rangeworthy.*
- *Fields are contained in places by clipped hedgerows with an even distribution of mature specimen trees, creating a strong parkland character.*
- *Areas of neutral grassland within Yate Vale support a diverse range of flora including areas of species rich grassland, while arable farmland provides nesting opportunities in spring and foraging potential in the winter for farmland birds including Amber and Red listed species.*
- *North and west of Yate, tall overgrown hedgerows with mature hedgerow trees, copses and small woodlands, create a more enclosed landscape. Elsewhere occasional small woodlands scattered through parts of the area, often associated with relic coal mining, quarrying and the River Frome. The scattered woodland connected by hedgerows and other habitats across the Yate Vale provides habitat for notable species including European Protected Species.*
- *Large scale landscape with views largely filtered by vegetation; some distant views possible. This Character Area is overlooked by the adjacent Wickwar Ridge, The Marle Hills and over some distance from the Cotswold Scarp.*
- *Pennant stone walls feature along some minor roads to the south and B4058, elsewhere associated with older settlement and scattered farms.*

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<sup>5</sup> South Gloucestershire Landscape Character Assessment, [Landscape character assessment | South Gloucestershire Council \(southglos.gov.uk\)](https://www.southglos.gov.uk/landscap-character-assessment)

- *The town of Yate lies in the south, merging with Chipping Sodbury beyond the south eastern boundary. The village of Frampton Cotterell defines part of the southern boundary. There is a significant area proposed for the development of a new neighbourhood immediately to the north of Yate.*
- *A number of scattered linear settlements extend northwards from Yate and Iron Acton along the network of roads and lanes, mixed with an intricate landscape of dispersed settlement, historic courts, coal industry relics, commons, woodlands and fields. Much of the northern part of the area has very little settlement, other than scattered farmsteads.*
- *Numerous minor roads bisect the area in the south, whereas in the north access is very relatively limited and there are areas of tranquillity.*
- *Overhead powerlines cross the area and are a visible horizontal and vertical element.”*

## Landscape Sensitivity

- 4.10. In 2021, the Council has published its *Landscape Sensitivity Assessment – Solar PV and Wind Energy Development*<sup>6</sup>. This assessment considers the host LCA 8 Yate Vale to be of varying sensitivity to solar development depending on the scale of the proposed solar development:
- low sensitivity to development up to 5ha;
  - low to moderate sensitivity to development of 6–10ha;
  - moderate sensitivity to development of 11–15ha; and
  - moderate to high sensitivity to development over 16ha.
- 4.11. According to the published sensitivity assessment, given the physical footprint of the proposed development, the host LCA is considered to be of moderate to high sensitivity to large solar farms.
- 4.12. The ‘moderate to high sensitivity’ has been defined in the published *Landscape Sensitivity Assessment – Solar PV and Wind Energy Development* as: **“Key characteristics and qualities of the landscape are vulnerable to change from wind and solar energy development. There may be some limited opportunity to accommodate wind turbines/ solar panels without significantly changing landscape character. Great care would be needed in siting and design.”**
- 4.13. The Council is currently consulting on a renewable energy strategy, with the consultation website most recently being updated in February 2022 . The website includes a map indicating where the Council’s Renewable Energy Resource Assessment (RERAS ) suggests that there is potential for solar farm development.<sup>7</sup> The site and the majority of the study

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<sup>6</sup> Landscape Sensitivity Assessment – Solar PV and Wind Energy Development, [SGlos-Landscape-Sensitivity-Assessment-Renewables-Final-Report.pdf \(southglos.gov.uk\)](https://www.southglos.gov.uk/documents/South-Gloucestershire-RERAS-Final-Report-18-11-2021.pdf)

<sup>7</sup> <https://www.southglos.gov.uk/documents/South-Gloucestershire-RERAS-Final-Report-18-11-2021.pdf>  
& <https://beta.southglos.gov.uk/publications/local-plan-2020-phase-2-urban-rural-and-key->



area has been identified as technically suitable for solar energy developments. It is important to acknowledge that this area also includes lower and upper slopes of Wickwar Ridge, which forms part of the Visually Important Hillside (according to the Council's *Core Strategy*).

## Local Landscape Character

4.14. The landscape character of the site and its environs are described in Section 2 above. The following description represents a summary of the onsite survey, verified against the published *South Gloucestershire Landscape Character Assessment SPD*. The local landscape comprises:

- Managed arable and pastoral land.
- Simple topography.
- Medium to small scale field.
- Mature and well developed hedgerows in good condition.
- Mature Oak and Ash trees in hedgerows.
- Small blocks of woodland.
- Views are foreshortened by the simple and level landform of the vale.
- Undulating land to the north east and west, and south east visible from within the site over the hedgerows.
- Settlements are often screened and not evident.
- Wickwar Ridge is not evident.

4.15. In summary, it is a predominantly level managed agricultural landscape with strong field boundary vegetation, particularly within and around the site, and limited settlement pattern and roads.

## Landscape Character Effects

### Value

4.16. Being undesignated farmland, the value of the local landscape has been assessed in line with the *GLVIA3* and the Landscape Institute's *Technical Guidance Note 02/21: Assessing landscape value outside national designations* (TGN 02/21). This assessment is set out in Table 4.1 below:

Table 4.1: Assessment of Landscape Value (after GLVIA3 Box 5.1 and TGN 02/21)

Natural Heritage	<p>The site comprises actively managed pastoral and arable farmland and is not covered by any statutory or non-statutory nature conservation designations. The pastoral and arable fields, enclosed by hedgerows and trees are characteristic of the local landscape. Tree vegetation is present in the form of small blocks of woodland and hedgerow trees, with larger woodlands present on the rising land to the north east and west of the site.</p> <p>The strong hedgerows and trees within the site have been assessed as being of predominantly high or moderate quality, from an arboricultural and ecological point of view.</p> <p>There are a number of ponds and watercourses within the site, all with associated waterside trees.</p> <p>No clearly identified landscape-related geological interests.</p>
Cultural Heritage	No specific cultural or heritage connections, beyond the ordinary managed agricultural landscape.
Landscape Condition	The local landscape is considered to be in generally good condition.
Associations	No well-known specific associations with notable people, events or the arts.
Distinctiveness	The local landscape is not noted for being distinctive, and the site is not considered to be atypical of the local area.
Recreational	The local PRoW network is generally good, with routes both crossing and running adjacent to the site. There are no long-distance promoted paths or cycle routes in the local area.
Perceptual - Scenic	The site and its environs are of moderate scenic quality being a pleasant working countryside. The nearby Wickwar Quarry, exposed slopes and large scale built form within it do exert locally negative influence.
Perceptual - Wildness and Tranquillity	The local landscape is clearly managed for agriculture. There is a limited sense of remoteness and moderate sense of tranquillity.
Functional	The local landscape does not provide a particular function in relation to nearby settlements and does not provide the

	setting for any statutory/national or non-statutory/ local landscape designations.
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4.17. On the basis of this analysis, the site and its environs are considered to be of medium value; not exhibiting any special functional or visual relationship with any statutory landscape designations or exhibiting demonstrable physical attributes that would elevate it from the ordinary countryside.

**Susceptibility**

4.18. The following factors are considered relevant with respect to the susceptibility of the landscape to the proposed development:

- The level topography and strong field boundary vegetation reduces inter-visibility between the site and much of its environs for low-level views, allowing the local landscape to accommodate and visually absorb development of the type proposed.
- The existing vegetation pattern provides an appropriate context for further planting to be included as part of the proposed development.

4.19. On balance, in particular because of the relatively low physical height of the proposed development and the strong field boundary vegetation within the site and local landscape, the susceptibility of the local landscape to the proposed development is judged to be medium.

**Sensitivity**

4.20. The local landscape is considered to be of medium value and medium susceptibility to development of the type proposed. Overall, this analysis supports the conclusion that the landscape of the site and the surrounding area has a medium sensitivity to development of the type proposed.

4.21. The published *Landscape Sensitivity Assessment – Solar PV and Wind Energy Development* considers the host LCA 8 Yate Vale to be of medium to high sensitivity to large-scale solar development. However, the published report is a high level assessment. It is not considered to accurately reflect the sensitivity of the site and immediate landscape due to the very strong boundary vegetation which would limit visibility of the proposed solar modules and ancillary infrastructure within this level and compartmentalised landscape.

**Effects**

4.22. Solar farms are characterised by their light footprint, with the panels following and reflecting the underlying topography. The underlying simple and level topographical profile of the site would remain apparent.

4.23. Due to their relatively low-lying profile, the proposed solar panels would not affect any medium to close range views, of any features or elements that may be regarded as eye catching or being familiar to local residents such as the gently rising landform to the north east or south east near West End, when viewed from outside of the site and in the wider landscape. Wickwar Ridge is not visible from the site or its immediate environs.

- 4.24. The existing landscape framework around the site, particularly the strong and tall field boundary hedgerows, helps curtail views in and out. It is because of this containment and compartmentalisation that the influence of the proposed development upon the characteristics of the local landscape would be very limited. Where more elevated views across the landscape do exist, for example from higher ground to the south-east near West End or east of Bibstone, the proposed development would be very well enclosed and heavily restricted, and would appear well integrated into the receiving environment due to the strong vegetative framework and proposed tree planting. In views from within the vale, for example those gained from nearby PRoWs in the vicinity of the site, the proposed development would not break the skyline and would be hidden by the boundary hedgerows (with the majority of them at least 3m in height). Indeed, the strong field boundary vegetation that surrounds the site means that there would be only very limited visibility of the structures within the proposed development from within the surrounding area.
- 4.25. The *South Gloucestershire Landscape Character Assessment* SPD states that this is a “**Large scale landscape with views largely filtered by vegetation...**” and “**Fields are contained in places by clipped hedgerows with an even distribution of mature specimen trees...**”. Most importantly, the proposed development would respect the field pattern with the site’s boundary vegetation retained and enhanced. Neither the landscape scale nor the field pattern would therefore be noticeably altered by the proposed development. The character of the local landscape is robust enough to withstand the introduced change as it reads as being of slightly different character and condition.
- 4.26. The landscape appears settled and quiet with limited settlement or roads, but it is not remote. Whilst the proposed development would introduce man-made structures to a managed agricultural landscape, post-construction there would be very limited activity on the site, resulting in limited influence on local tranquillity. The strong field boundary vegetation would contain the visibility of the solar farm and any maintenance activities within it, and the local landscape would continue to be perceived as predominantly agricultural. The relatively low and localised visibility of the proposed development would help retain the underlying agricultural character of the local landscape, with the relatively level of tranquillity not materially different to that currently experienced locally. Although the sense of openness would decrease locally, this would be limited to the site itself, experienced from the two Public Footpaths that cross the site. The existing landscape framework around the site would reduce any negative influence over the surrounding landscape character.
- 4.27. As part of the proposals, the retained tree and hedgerow vegetation would continue to be actively managed to reflect agricultural best practice. Field margins and grassland beneath the panels would be managed to maximise the biodiversity on site, resulting in beneficial change to the condition and quality of the landscape on a local level. The key characteristics and features of the host LCA 8 Yat Vale would undergo limited overall change and would not be redefined. The proposed development would not result in notable adverse effects on Wickwar Ridge due to lack of inter-visibility.
- 4.28. All effects on landscape character would be long-term (but not permanent) in duration, but fully reversible at the end of the proposed development.
- 4.29. Based on the analysis above, the proposed development would result in a high magnitude of change to the landscape character of the site, and such effects are unlikely to be experienced beyond the site’s boundary. This magnitude would remain the same for the life of the solar farm.

- 4.30. The character of the LCA 8 Yate Vale in the immediate environs to the site, is considered to be largely affected by the presence of the solar farm rather than its visibility. As demonstrated by the visual assessment – Section 5 of this LVIA, the proposed development would be largely screened from the majority of the views gained from the nearby and more distant PRowS and public highways. The proposed development would not have any discernible influence over any of the key factors that collectively define the character of the LCA 8 Yate Vale, such as its level simple topography, large scale, settlement pattern and linear features, level of tranquillity and distinctiveness, or inter-visibility with adjacent landscapes. Whilst present it would not manifest itself in the landscape.
- 4.31. For that reason, the magnitude of change to landscape character of the LCA 8 Yate Vale is considered to be low, with effects minor adverse.
- 4.32. None of the adjacent LCAs, such as LCA 5 Wickwar Ridge & Vale and LCA 7 Falfield Vale would experience any direct physical effects, with the only potential change limited to its perceptual and experiential qualities. Given the very limited theoretical visibility of the proposed development, and as confirmed by the visual assessment (Section 5 below) views from the neighbouring LCAs are extremely limited to two specific areas: from the higher ground to the north east of the site – near Brand Wood, and from the south east on the northern edge of West End. In both instances, views are heavily restricted and are not representative of the general lack of inter-visibility between the proposed development and the two LCAs. For that reason, the landscape character effects upon the neighbouring LCA 5 Wickwar Ridge & Vale and LCA 7 Falfield Vale are assessed as negligible, with effects negligible neutral.

## Summary of Effects on Landscape Character

- 4.33. The proposed development would physically introduce new elements into the receiving landscape, but its presence would not manifest itself in the wider landscape beyond the site's environs due to the level of enclosure within and around the site. The existing strong landscape framework would be further strengthened with the proposed mitigation measures, helping to retain the underlying agricultural character of the surrounding landscape.
- 4.34. The proposed development fits well into the existing field pattern and respects the scale of the landscape, does not negatively alter the field boundaries, and is respectful of the existing landscape features that characterise this part of the landscape. Most importantly the key characteristics, identified in the published landscape character assessments, would not be redefined, and would continue to characterise the local landscape. The existing landscape character is considered robust enough to withstand the introduced changes.

## 5. Visual Amenity

- 5.1. The assessment of visual effects considers the changes in views arising from the proposed development in relation to visual receptors including the surrounding settlements, residential properties, highways, PRowS together with the effects on identified viewpoints. Visual amenity is defined in *GLVIA3* as the:

**“Overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment**

**of activities of the people living, working, recreating, visiting or travelling through an area.”<sup>8</sup>**

- 5.2. The assessment was carried out in late August 2022 as part of on-site survey. Site photographs were taken to record the character and nature of the views, and the existing visibility of the site. Where relevant the seasonal changes to the vegetative cover have been considered as part of the visual assessment.
- 5.3. The construction and decommissioning stages would be of relatively short duration and although relevant any potential visual effects would be similar or lower to those identified during the long-term operational phase of the proposed development. Therefore, this assessment focuses on the operational stage, assessed following completion at Year 1, and at Year 5 to indicate the effectiveness of the proposed mitigation measures.

## **Zone of Theoretical Visibility**

- 5.4. A Screened Zone of Theoretical Visibility (SZTV) has been modelled for the proposed development – see Figure 4. The methodology used for the production of the SZTV is set out on the plan itself, but in summary:
- the proposed solar modules have been modelled at 3.5m in height across the site to represent the likely worst-case scenario for the majority of structures within the proposed solar farm.
  - existing built form (as shown on OS Open Map Local) has been modelled at 8m in height.
  - areas of woodland (as shown on OS Open Map Local) are modelled at 15m in height.
- 5.5. It is important to reiterate that the modelled SZTV does not take into account other vegetation such as field boundary and roadside hedgerows, which are not included in the above datasets. This means, and the field survey has confirmed, that the actual visibility of the proposed development would be substantially reduced from that shown on the modelled SZTV. The approximate extent of the visual envelope of the proposed development is indicated on Figure 4 as a dashed grey line.

## **Review and Scoping out of Visual Receptors**

- 5.6. Analysis of the 1:25,000 OS Explorer mapping indicates that there are no areas of Open Access Land, commons, or country parks in the vicinity of the site or the wider study area. There are no promoted long-distance footpaths or Sustrans routes within the study area. The closest such feature, the Jubilee Way is located to the south west and over 3km away.

### **PRoWs**

- 5.7. As noted previously, public access across the study area is provided by the aforementioned public highways and Prows, which connect the nearby settlements and cross the low lying vale. Two of those PRoWs: OCR/17 and LWR/3 fall within the site. There are a number of other routes located in very close proximity or abutting the site:

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<sup>8</sup> Glossary, Page 158, GLVIA3 3<sup>rd</sup> Edition



- OCR/13 leading east from Bibstone to Brand Wood, north east of the site.
- OCR/14 leading south east from Bibstone to Hawley's Lane, east of Talbot's End, north east of the site.
- OCR/18, linking the eastern edge of Talbot's End and leading along Lake Lane, skirting the eastern edge of the site – and then crossing the site as LWR/3 and leading south east to West End.
- LWR/3 on the higher ground, north of West End, south east of the site.
- LWR/1 and LWR/2 as one descends from West End with the routes continuing towards Heath End as OCR/19, near the site's southern and south western edge.
- OCR/17 on the approach to the site from the B4058 and West End, to the west of the site. OCR/17 then leads north east across the site's northern fields.
- OCR/16, between the B4058 and Talbot's End, passing the site's north western edge in close proximity.

5.8. The above mentioned PRoWs have been visited and the on-site assessment concluded, generally speaking, that the level of inter-visibility in summer months is relatively limited and highly localised. As part of the second stage of consultation the Council's Landscape Officer requested that visual assessment includes the following receptors:

- Additional viewpoints along the nearby Public Rights of Way (PRoWs) immediately to the south west and south of the site, and to include the eastern edge of Heath End.
- Additional viewpoint along PRoW near Sodam Mill, on the lower slopes of Wicks' Hill, north west of the site.
- Views from the southern edge of Talbot's End and PRoW approaching the site.
- View from PRoW and road to the east of Talbot's End, in close proximity to the site.

5.9. The following paragraphs review the inter-visibility between these nearby PRoWs and the site, and consider the likely visual effects, and whether such receptors should be taken for further detailed assessment.

5.10. The PRoWs on the higher ground to the north east and south east have been judged to offer some heavily restricted views of the site and its interior, and this has been considered informative to the decision making process. Therefore, to illustrate these heavily restricted views, and to inform the Council's Case Officer and Landscape Officer, four static viewpoints have been selected along the elevated section of OCR/13 near Brand Wood and LWR/3 north of West End: refer to Figure 5 Context Baseline Viewpoints and Photoviews: Viewpoints 1-4, and corresponding Figure 6 Photomontages and Wirelines.

5.11. Notwithstanding the above, it is important to recognise that views from the elevated OCR/13 include only very small parts of the site. Views are heavily restricted with the majority of the site screened by the intervening vegetation. The nearby Public Footpath OCR/14 between Bibstone and Hawley's Lane is located at a much lower elevation and shares a similar topographical elevation as the site – approximately 60m AOD. Views towards the site from



this particular PRow are largely screened by field boundary hedgerows and views of the site are not gained. Similarly, views from Hawley's Lane are screened and strongly focused on the immediate foreground with no visibility of the site. This public highway coincides with Other Route with Public Access. In summary, due to lack of inter-visibility and strongly enclosed views, the lower lying Public Footpath OCR/14 and Hawley's Lane / Other Route with Public Access have been excluded from further detailed visual assessment, with views likely to be inconsequential. The selected Viewpoint 1 and Viewpoint 2, however, can serve as proxy views acknowledging that the views will be considerably more restricted and screened.

- 5.12. With regard to Public Footpath OCR/18, which coincides with Lake Lane, views of the site's interior are initially screened by a maturing woodland, which lies immediately to the north of the site and perimeter hedgerows H7 (2.5m height). The PRow sits at a similar elevation as the site; thus, its interior is not evident. The PRow quickly enters Lake Lane with views strongly channelled by mature and well developed hedgerows either side. The site's perimeter hedgerows: H8 and H9 are approximately 2.5m to 3.5m high respectively (refer to the Tree Survey Plan) and the site's interior is completely screened except for views through field gates. It is anticipated that the introduced physical buffer between the solar panels and boundary hedgerow is sufficient enough to screen the introduced infrastructure, including the substation compound, given its height. To ensure that views are not gained and the ruralness of the views is conserved, the perimeter hedgerow H8 would be allowed to grow taller, to approximately 3.5m, to match the height of the adjacent hedgerow H9. For the reason above, this particular PRow and Lake Lane are excluded from further assessment, with views likely to be inconsequential.
- 5.13. As one travels from West End along PRow LWR/1, LWR/2, and LWR/3 – refer to Viewpoint 3 and Viewpoint 4 for comparison, views are slightly elevated, and the site is identifiable amongst the hedgerows and tree canopies. Such restricted views, however, quickly disappear and the PRows follow the low lying and level landform with the site's interior largely screened by its perimeter hedgerows: H41, H42, H44, H45, H46, H49, H50, and H55.
- 5.14. PRow LWR/3 enters the site and views, inevitably will be very close range and open, with the magnitude of change high and effects major adverse. As the routes leads further north along Lake Lane, views become screened – as described in the preceding paragraphs. With regard to Public Footpath OCR/18, which coincides with Lake Lane, views of the site's interior are initially screened by a maturing woodland, which lies immediately to the north of the site and perimeter hedgerows H7 (2.5m height). The PRow sits at a similar elevation as the site; thus, its interior is not evident. The PRow quickly enters Lake Lane with views strongly channelled by mature and well developed hedgerows either side. The site's perimeter hedgerows: H8 and H9 are approximately 2.5m to 3.5m high respectively (refer to the Tree Survey Plan) and the site's interior is completely screened except for views through field gates. It is anticipated that the introduced physical buffer between the solar panels and boundary hedgerow is sufficient enough to screen the introduced infrastructure, including the substation compound, given its height. To ensure that views are not gained and the ruralness of the views is conserved, the perimeter hedgerow H8 would be allowed to grow taller, to approximately 3.5m, to match the height of the adjacent hedgerow H9. For the reason above, this particular PRow and Lake Lane are excluded from further assessment, with views likely to be inconsequential..
- 5.15. PRows LWR/1 and LWR/2 continue north west, towards Heath End, as Public Footpath OCR/19, skirting the site's southern and south western edge. The aforementioned hedgerows terminate views into the site's interior, albeit some very restricted views do exist. To illustrate

this limited inter-visibility, two static viewpoints have been selected along these routes: Viewpoint 10 and Viewpoint 11. Viewpoint 10 also aims to illustrate views from the eastern edge of Heath End, as requested by the Council's Landscape Officer. Views from within the village, the B4058 and The Green at Heathend Farm are screened, and Viewpoint 10 along PRoW OCR/19 illustrates the worst case scenario of inter-visibility.

- 5.16. As mentioned before views from Heath End are screened. During the site visit views from Public Footpath OCR/17 have been investigated at various distances to verify the effectiveness of the existing vegetative screening and identify any localised minute changes in levels that may afford views into the site. Public Footpath OCR/17 has been walked between the road and the site – refer to Viewpoint 7, including PRoW OCR/20 further west of the B4058 – Plate 10 below. No views of the site's interior or the higher ground further east have been gained from Public Footpath OCR/20.



*Plate 10: View from Public Footpath OCR/20, west of the B4058. Views east are screened by roadside vegetation.*

- 5.17. The Council's Landscape Officer also requested that views from PRoW near Sodam Mill, on the lower slopes of Wicks' Hill, north west of the site, should be included in the assessment. The site visit confirmed that views north west from within the site are screened by the intervening vegetation and / or built form. In other words, there are no lines of sight between any part of the site and the lower slopes of Wicks' Hill. With this in mind, Viewpoint 3 is informative and illustrates the vegetative cover within the low lying site with Wicks' Hill in the distance. The lower slopes of Wicks' Hill, traversed by PRoWs OCR/5 and OCR/37 are not visible even from this elevated location. For that reason, the PRoWs near Sodam Mill and on Wicks' Hill have not been considered relevant to this LVIA.
- 5.18. In addition, the Council's Landscape Officer requested views from the southern edge of Talbot's End and PRoW approaching the site, i.e., views from Public Footpath OCR/16.

Viewpoint 8 has been selected along the most open section of this PRow with its northern section completely enclosed by boundary hedgerows, as illustrated by Plate 11 and Plate 12 below. The intervening hedgerows have not been subject to a tree survey, as they fall outside of the site's boundary. It is, however, evident that their height is considerable, and they screen the site completely. The eye is drawn south west and west rather than east and towards the site. The elevated ground east of the site and Wickwar Ridge to the south east are almost completely screened, and do not contribute to the appreciation of the landscape from this particular section of the PRow.



*Plate 11: View from the northern section of Public Footpath OCR/16, south of Talbot's End, looking south east. The site is screened – the vegetation seen through the field access is that associated with the access track leading from Talbot's End.*





*Plate 12: View from the northern section of Public Footpath OCR/16, south of Talbot's End, looking south. The site is screened.*

### **Public Highways**

- 5.19. The preliminary review of OS maps, SZTV plan, and on-site appraisal confirmed that in reality views of the site cannot be gained from any of the nearby public highways. Views from along Talbot's End road, Hawley's Lane, and Farleigh Lane are screened, and no part of the site would be visible or identifiable by travelling road users – refer to Viewpoint 1 as a proxy view from Farleigh Lane and the B4058 in Bibstone.
- 5.20. Views from the B4058, to the west of the site, are screened by either roadside vegetation or built form in Heath End. With regard to views from Cowship Lane and Rag Lane to the south west and south of the site, these are screened by the roadside hedgerows. Where gaps do exist, hedgerows and trees in the intervening landscape screen the site completely – Viewpoint 6 illustrates views from Cowship Lane with Viewpoint 5 indicating views from a PRoW between Rag Lane and Cowship Lane. The elevated section of Cowship Lane, within West End are screened by built form.
- 5.21. For the reasons above, none of the nearby public highways are considered relevant to this LVIA.

### **Residential Properties**

- 5.22. There may be some visibility of parts of the proposed development from certain residential properties in the surrounding area, with visibility reducing with increasing distance from the site. Based on on-site analysis the following properties are relevant:
- Varley Farm,

- Faith Cottage,
- The Gables & Brew House,
- Talebrocke, and
- Heathend Farm.

- 5.23. A detailed review of aerial imagery (Google Earth) indicates that receptors occupying other dwellings in the surrounding area are unlikely to have visibility of the proposed development due to the location and orientation of the residential properties in relation to the adjacent farm buildings, and intervening vegetation.
- 5.24. It is also worth mentioning that, during the public consultation stage, RES (the developer) discussed with the local residents the increase in hedgerow height and use of close boarded timber gate at the site entrance, to reduce and screen views into the site's interior.

### **Sensitivity of Receptors**

- 5.25. The sensitivity of visual receptors is established by cross referencing the value of views gained and their inherent susceptibility to change brought about by the proposed scheme. The local area is an undesignated managed/working agricultural landscape and is therefore considered to be of medium value.
- 5.26. Users of PRowS and other recreational resources are considered to be of high susceptibility to changes arising from development of the type proposed as the surrounding landscape forms a strong component of their visual amenity. The susceptibility of residential occupiers is similarly considered to be high. Recreational and residential receptors are there assessed as being of high sensitivity.
- 5.27. Road users are not considered in this LVIA, given lack of views towards the site from the nearby public highways.
- 5.28. Further details on the LVIA methodology are provided in Appendix 1.

### **Potential Visual Effects**

- 5.29. As evidenced above, and confirmed during the site visit, the Screened Zone of Theoretical Visibility (ZTV) plan (Figure 4) overestimates the visibility of the proposed scheme as it does not take into account individual hedgerows and hedgerow trees present in the surrounding landscape. It is worth reiterating that the majority of the internal and perimeter hedgerows associated with the site are between 3m to 4m in height, and often higher. Thus, the visibility of the proposed solar modules (3.5m high) and inverter substations (3m high) would be extremely reduced, or they would not be visible at all.
- 5.30. The actual extent and pattern of visibility is likely to be considerably lower than that indicated on the SZTV, and as evidenced in the subsequent viewpoint assessment. A 'zone of visual influence' has been mapped on the SZTV (Figure 4) to indicate the locations from where the proposed scheme would be visible. It aims to illustrate a more realistic extent of the visibility of the proposed scheme.



- 5.31. As part of the proposed mitigation measures, the existing hedgerows would be allowed to grow out to a minimum of 3.5m height to successfully screen the proposed solar modules. Given the relatively level topography of the site and adjacent fields, it is predicted that views from the nearby low lying PRow would terminate on the site's hedgerows.
- 5.32. Following the feedback from the Council, a set of 11 no. of viewpoints has been selected, in close to medium proximity, as shown on the SZTV plan (Figure 4). The location of the selected viewpoints reflected the findings of the on-site survey and predicted visibility of the proposed scheme, and input from the Council. The photographs, illustrating views gained by the selected receptors, are shown on Figure 5 Context Baseline Viewpoints and Photoviews, and are supported by three photomontages and wirelines at Figure 6. These receptors have been considered to be the most relevant and informative, and can be used as proxy views for other close to medium range locations not covered by static viewpoints or considered in detail in this LVIA. The viewpoints include those initially selected by Pegasus, as well as additional viewpoints requested by the Council during the pre-application stage.
- 5.33. The inclusion of a viewpoint in this LVIA does not imply that predicted effects will occur, or will be of higher magnitude of change. A variety of landscape and visual mitigation measures have been incorporated through the iterative design process in order to prevent, reduce or offset potential landscape and visual effects.
- 5.34. It is worth reiterating that in the majority of cases the nature and character of the views gained from PRow around the site are influenced by strong field boundary vegetation. The strong field boundary vegetation means that, apart from those that pass through or immediately adjacent to the Site, the majority of the nearby PRow do not offer any views of the interior of the site, or views are substantially restricted, such that the proposed scheme would not be easily discernible in the view – as discussed in the preceding subsection Review and Scoping out of Visual Receptors.

## **Viewpoint Assessment**

- 5.35. The following paragraphs discuss the nature and character of views gained from the selected viewpoints, and establish the predicted level of change and scale of effects. It is not necessary to discuss each viewpoint separately, as given their close to medium range, and characteristics of the local landscape, the baseline views are often identical or very similar. Therefore, where applicable, views are discussed together, based on the direction of views and their location in relation to the site.

### **Views from north and north east: Bibstone and Public Footpath OCR/13 towards Brand Wood**

#### **Viewpoint 1 and Viewpoint 2**

##### **Baseline**

- 5.36. As illustrated by the Topography and Visual Receptors Plan Figure 3, the landscape around Bibstone and Brand Wood rises to approximately 70m AOD, respectively. Views are elevated and receptors overlook the low lying and heavily vegetated vale with the eye drawn towards the higher ground to the south and south west. The difference in elevation is relatively modest and the field pattern across the vale is not discernible, being largely cloaked in tree

canopies and hedgerows. The exception is the immediate foreground where receptors can gain views of the sloping fields delineated by strong field pattern.

- 5.37. In both views, the site is almost imperceptible being screened by the built form in Talbot's End and intervening vegetation. Very small parts of the site can be identified in the distance, amongst the tree canopies and hedgerows but the site does not form a clear feature in the view, and does not attract attention. It is not prominent or evident. Views are characterised by the well treed settled and rural vale, enclosed by rising landform. The focus is on the immediate foreground with the eye skirting across the enclosed and compartmentalised vale, and travelling towards the elevated horizon.

### **Magnitude of Change**

- 5.38. The site is located approximately 670m to 690m away at its closest point, but the visible eastern parts of the site are located further away. The hedgerows along Hawley's Lane and Lake Lane can be identified in the views, and help establish the location and extent of the site. The construction access track from Farleigh Lane to Talbot's End is not visible.
- 5.39. At Viewpoint 1 it is predicted that only a very minor part of a single field, with solar modules would be visible. At Viewpoint 2 it is likely that multiple fields would be visible. Views, however, would be foreshortened by the landform and intervening vegetation with only upper parts of the solar modules visible above the hedgerow lines and amongst tree canopies. The physical footprint of the scheme would not be apparent, being compartmentalised by the site's vegetation. Solar modules along the site's eastern edge are likely to be easily identifiable albeit at the distance of at least 670m. Receptors would be looking at the back of the solar modules which would appear darker and recessive. The linear arrangement of the proposed modules would echo the linear pattern of hedgerow in the vale and there would be no visual competition or discord (Figure 6). At Viewpoint 1 and initial section of Public Footpaths OCR/13 and OCR/14, the magnitude of change is considered negligible. Views further south west and west towards Brand Wood quickly disappear as the landform dips below the 70m AOD contour and views are interrupted by field boundary vegetation.
- 5.40. With regard to Viewpoint 2, it has to be recognised that this location has been specifically selected to illustrate the worst case scenario of the visibility. Views further south west – on the edge of Brand Wood, and those to the east – between Bibstone and Viewpoint 2 are more interrupted by the rising landform and vegetation in the intervening fields, and that within the site itself. As a precautionary measure, the magnitude of change at Viewpoint 2 is assessed as medium, reflecting the horizontal extent of the scheme. Elsewhere along this elevated section of Public Footpath OCR/13, the magnitude of change would be low at most.

### **Scale of Effects**

- 5.41. Based on the above the proposed development would bring about a negligible neutral effect at Viewpoint 1 and the initial elevated sections of Public Footpaths OCR/13 and OCR/14.
- 5.42. With regard to Viewpoint 2, the effects would be major adverse at Year 1. It is important to stress that receptors travelling along the rest of this elevated section of the PRoW would experience a lower degree of change, with the effects predicted to be moderate at most at Year 1.

### **Residual Effects**

- 5.43. Once the proposed mitigation measures have matured, it is predicted that views of the proposed scheme at Viewpoint 1, and the initial elevated sections of Public Footpaths OCR/13 and OCR/14, would disappear completely. This would equate to a 'no change' scenario and no effects at Year 5.
- 5.44. With regard to Viewpoint 2 it is predicted that, as the boundary hedgerows grow taller, views of the solar panels and inverters in the eastern part of the site would be increasingly screened with the panels in the central parts of the site not visible at all. On that basis, the magnitude of change is assessed as low with the effects moderate adverse at most at Year 5. The remaining elevated short section of Public Footpaths OCR/13 would be subject to negligible change and negligible effects at Year 5.

### **Views from south east: West End and Public Footpaths LWR/2, and LWR/3**

#### **Viewpoint 3 and Viewpoint 4**

##### **Baseline**

- 5.45. These two viewpoints aim to illustrate views from the higher ground around West End, which is located to the south east of the site. The settlement marks a localised higher ground with the Wickwar Ridge located further south. Views are elevated with the Topography and Visual Receptors Plan Figure 3 indicating 75m and 80m AOD for Viewpoint 3 and Viewpoint 4 respectively. The site's edge is identifiable due to its strong boundary vegetation and Lake Copse marking its southern part. In both views, the foreground and sloping middle ground are relatively open, albeit views are interrupted at Viewpoint 4 by the equipment and hay bales located in the farmyard. Mature trees at The Cliffs and on the upper slopes enclose the views, and the site remains screened as one descends towards The Cliffs with the contours reading approximately 70m AOD. On the approach to Viewpoint 3 the landform gently rises and then slopes again towards the site. Views are slightly elevated and open due to the field pattern and limited vegetation in the immediate foreground. Beyond the immediate environs, the vale exhibits strongly enclosed and well treed character, with the backdrop of Wick's Hill to the north west and spoils of the Wickwar Quarry to the east and right. The eye is drawn towards the distant elevated landscape which includes wooded Abbots-side Hill to the north west. Built form in Talbot's End is not visible, giving evidence of the vegetative screening in the vale and across the site. Built form in elevated Bibstone attracts attention along with the incongruous man made spoils of the Wickwar Quarry.

##### **Magnitude of Change**

- 5.46. At Viewpoint 3, the site reads as being part of a well treed vale landscape with the site's interior almost completely screened. Individual fields can be identified amongst the tree canopies, but these are largely limited to the eastern part of the site. The boundary hedgerows along the southern edge of the site vary in height with the lowest hedgerows H44 and H49 identified as being 2.5m and 2m high, respectively. The remaining southern perimeter hedgerows, H42, H45, H46, H50, and H55 are much higher reaching up to 5.5m height. Views would include the modules located across the eastern part of the site and within its southern most fields, seen amongst the internal hedgerows and trees. The perimeter trees would help to screen parts of the proposed development and disintegrate it visually, reducing its perceived scale and horizontal extent.
- 5.47. With regard to Viewpoint 4, the site is almost completely screened with only one field, in the south western part of the site, identifiable in the view – to the left of Lake Cope and light

coloured isolated barn (near Viewpoint 11). The magnitude of change is considered to be negligible, given the distance of almost km away, and very limited inter-visibility with the site's interior.

- 5.48. It is predicted that at Viewpoint 3, receptors would gain views of the relatively small parts of the scheme only, and would not necessarily be aware of its physical extent (Figure 6). A very small section of the solar modules, located in the south eastern most field, would be seen some 650m away with boundary trees compartmentalising the site and limiting its visual influence. In addition, some of the panels in the eastern fields would also be visible but their scale and height would be considerably reduced given the distant and vegetative screening. Whilst some degree of change would inevitably be experienced, due to proximity and orientation of the panels – facing south towards the viewpoint, the overall ruralness of the view would not be compromised or substantially changed. As a precautionary measure the magnitude of change is assessed as medium at Year 1.

#### **Scale of Effects**

- 5.49. Based on the above, receptors at Viewpoint 3 would experience major effects at Year 1 with views closer to West End and at Viewpoint 4 reducing to negligible neutral.

#### **Residual Effects**

- 5.50. Once the proposed mitigation measures have matured, it is predicted that the proposed scheme would be considerably screened in views from Viewpoint 3, at Year 5. The solar modules in the southern and south eastern most part of the site would be considerably screened with hedgerow H44 (currently 2.5m high) allowed to grow out and reach similar height as the adjacent H45 and H46 (currently at 4m height). Similarly, hedgerows H49 and H55 would be allowed to grow out to approximately 4.5m to form a transition height to meet hedgerow H50 at 5.5m, and screen the modules visible in the central part of the site. The internal hedgerows H40 and H43 (both at 3m height) will be allowed to grow taller – to approximately 4.5m, to screen the modules in the eastern part of the site.
- 5.51. On that basis it is predicted that the magnitude of change would be negligible with effects also negligible neutral at Year 5 for Viewpoint 4 but likely to remain at low for Viewpoint 3, with the effects moderate adverse.

#### **Views from south: Public Footpath LWR/35 and Cowship Lane**

##### **Viewpoint 5 and Viewpoint 6**

##### **Baseline**

- 5.52. Viewpoint 5 and Viewpoint 6 have been purposely selected in the southern part of the study area to test the level of inter-visibility with the side and verify the accuracy of the SZTV plan. Views are strongly enclosed, focused on the immediate foreground, and are compartmentalised by the intervening hedgerows. The higher ground to the north east of the site, around Brand Wood, is not visible or is heavily screened with the intervening vegetation particularly effective due to the level landform across the vale. The site is not visible. No features associated with the site or Talbot's End are visible in these views, or any other section of Cowship Lane, Public Footpath LWR/35, or slightly more elevated Rag Lane / Westend Road leading to West End.



### **Magnitude of Change**

- 5.53. Given lack of views, the magnitude of change is considered to equate to a 'no change' scenario.

### **Scale of Effects**

- 5.54. At Year 1, the introduction of the proposed scheme would not have any visual effects upon the receptors at Viewpoint 5 and Viewpoint 6, and those traveling along Cowship Lane, Public Footpath LWR/35, or slightly more elevated Rag Lane / Westend Road.

### **Residual Effects**

- 5.55. The residual effects would remain the same as those assessed at Year 1.

### **Views from west: Public Footpath OCR/17 and OCR/16**

#### **Viewpoint 7 and Viewpoint 8**

##### **Baseline**

- 5.56. These two viewpoints have been selected along two PRoWs that connect Heath End with Talbot's End and the site, to illustrate close range views from the north west and west. Public Footpath OCR/17 leads towards the site with Viewpoint 9 illustrating views from within the proposed development. In both locations, receptors are focused on the immediate foreground with the intervening hedgerows screening the site and vale landscape to the east and south east. Hedgerows and fields visible in the foreground fall outside of the site boundary, hence the vegetation has not been surveyed. It is worth clarifying that at Viewpoint 7, the site's western edge can be identified in the view and has been purposely annotated on Figure 5 to aid the site location. The stone wall and field gate visible in the distance mark the point where Public Footpath OCR/17 enters the site and leads further east. In site's interior is visible but is heavily restricted.
- 5.57. The gently rising landscape east of the site attracts attention and provides interest. The spoils associated with Wickwar Quarry are also visible, although the quarry facilities appear screened in these particular views.

### **Magnitude of Change**

- 5.58. The site's interior is not visible from Viewpoint 7, except for the very small part of the northern field – seen in the distance through the field gate. Generally speaking, none of the site's perimeter hedgerows are visible either, with hedgerow H71 (3m high) screened by a line of brambles (approximately 2m high) adjacent to the aforementioned field gate. Hedgerow H72 (3m in height) is partially visible over the boundary wall. At this point the proposed solar modules would be positioned some 250m at the closest point and it is accepted that the upper part of a very small number of modules may appear above the hedgerow line. This would be limited to the modules located immediately to the south of Public Footpath OCR/17 corridor, as it passes through the site. This would represent an extremely narrow angle of view and horizontal extent, and the solar modules would not be discernible in this view. Other parts of the site, its western fields located closer to Viewpoint 7, would be screened by the intervening hedgerows, with the western boundary hedgerows H70, H68, H67, H66, H64, and H63 (between 2.5m and 3m in height) not visible in this view.

- 5.59. Similarly, Viewpoint 8 has been purposely selected to capture views towards the site through a gap in the intervening hedgerows, to illustrate the worst case scenario of visibility. The hedgerow visible through the gap has been identified on the Tree Survey Plan as H73 (3m high) with occasional dead Elm trees, and the nearby Oak tree to the right as T78. The proposed solar modules may theoretically appear above the hedgerow line but given their substantial separation distance to the boundary hedgerows, they are unlikely to be visible or easily identifiable in this view. the deer fence and CCTV are also unlikely to be visible.
- 5.60. Given the strong landscape framework around the site and height of the site's perimeter hedgerows it is considered that the magnitude of change at both Viewpoint 7 and Viewpoint 8 would be negligible at Year 1.

#### **Scale of Effects**

- 5.61. Based on the above, receptors at Viewpoint 7 and Viewpoint 8, and the associated PRowWs would experience negligible neutral effects at Year 1.

#### **Residual Effects**

- 5.62. Once the proposed mitigation measures have matured, it is predicted that the proposed scheme would be completely screened in views from Viewpoint 7 and Viewpoint 8, with the effects equating to a 'no change' scenario.

### **Views from within the site: Public Footpath OCR/17**

#### **Viewpoint 9**

##### **Baseline**

- 5.63. Viewpoint 9 illustrates views from within the site and has been purposely selected to guide the layout design and development of mitigation measures. As part of the iterative design process, views from this location and PRowWs have been analysed and discussed with the team. The resultant layout incorporates a generous wide green corridor to accommodate Public Footpath OCR/17, whilst limiting views of the proposed solar modules. The secondary purpose of the green corridor was to retain the visual connectivity with the higher ground to the east, and west in westward views and to preserve the ruralness of the views.

##### **Magnitude of Change**

- 5.64. Views across the site are extremely close range and the proposed solar modules, fencing, and CCTV would fill the view, and the magnitude of change at Year 1 would be high (Figure 6). The same would be applicable to the remaining section of Public Footpath OCR/17 as it crosses the site.

##### **Scale of Effects**

- 5.65. Receptors traveling along Public Footpath OCR/17 through the site would experience major visual effects.

##### **Residual Effects**



- 5.66. The proposed mitigation measures include new hedgerow either side of the PRow corridor. It is anticipated that the new hedgerow would be allowed to grow to approximately 3m in height in order to screen the proposed infrastructure. Views of the solar modules would remain along the field edge and where the internal access track crosses the PRow corridor. For that reason, the residual change would be low with the effects moderate at Year 5, and are unlikely to change due to the layout design.

### **Views from south west: Public Footpath OCR/19 and LWR/1**

#### **Viewpoint 10 and Viewpoint 11**

##### **Baseline**

- 5.67. Viewpoint 10 and Viewpoint 11 have been selected along the nearby PRows to the south west and south of the site, in response to the feedback provided by the Council's Landscape Officer. Views are very close range with the hedgerows in the foreground marking the south western and southern edge of the site. The landform is level with the site's hedgerows and trees cloaking its interior, albeit some parts of the site are evident at Viewpoint 11. The landform to the north east, marked by Brand Wood, attract attention due to the contrast in elevation between the level vale and rising ridgeline. Wickwar Quarry is a detracting feature, evident at Viewpoint 11 and PRows to the south of the site.

##### **Magnitude of Change**

- 5.68. The site's western, south western, and southern edge, visible in these two viewpoints, is marked by the following hedgerows: H70, H68, H67, H66, H64, H63, H62, H59, H58, H56, H55, H50, H49, and H46. These vary in height but on average are approximately between 2.5m to 3m in height with some of the hedgerows reducing to 2m (H49) or increasing in height to 4m (H46) and 5.5m (H50).
- 5.69. Therefore, it is evident that views from these two viewpoints and associated PRows would include relatively large areas of solar modules visible above the boundary hedgerows, and across large parts of the available panorama. At Viewpoint 10, views would be limited to the western and south western most fields of the site with the remaining parts of the site screened. At Viewpoint 11, the solar modules located in the southern most fields and south eastern fields – where the contour rise to approximately 61.5m to 61m AOD, would be evident. The panels would be seen above the hedgerow line and amongst the internal vegetation.
- 5.70. Based on the above it is considered that the introduced change would bring about a high degree of change.

##### **Scale of Effects**

- 5.71. It is evident that the receptors present at Viewpoint 10 and Viewpoint 11, and Public Footpath OCR/19 and LWR/1 would experience major visual effects at Year 1.

##### **Residual Effects**

- 5.72. It is important to note that such effects can be easily mitigated against through change in the hedgerow management. The perimeter hedgerows would be allowed to grow to a

minimum of 3.5m height, and occasionally taller, in order to screen the proposed development. Once the proposed mitigation measures have matured, it is predicted that the proposed scheme would be completely screened in views from Viewpoint 10 and substantially screened in views at Viewpoint 11.

- 5.73. On that basis, the residual change would be negligible to low with the effects negligible to moderate at Year 5, at Viewpoint 10 and Viewpoint 11, respectively.

## Public Rights of Way

- 5.74. As discussed above, the majority of PRoWs within the study area are either not covered by the theoretical visibility of the proposed scheme or views are screened by the intervening vegetation. Those PRoWs that have been judged to be potentially affected have been visited with static viewpoints selected along these routes. Based on the discussion at the beginning of Section 5 of this LVIA and viewpoint assessment, it transpires that the following PRoWs would be affected to a varied degree at Year 1:

- OCR/13 – highly localised major (at Viewpoint 2), but generally moderate effects or negligible, depending on the visibility.
- OCR/14 – negligible to no change.
- OCR/18 along Lake Lane, outside of the site – negligible to no change.
- LWR/3 within the site – major.
- LWR/1, LWR/2, and LWR/3 on the higher ground, north of West End – highly localised major (at Viewpoint 2) and open slopes, but generally negligible closer to the village.
- OCR/19 – major.
- OCR/17 outside the site – negligible to moderate on the approach to site.
- OCR/17 within the site – major.
- OCR/16 – negligible to no change.

- 5.75. Once the proposed mitigation measures have matured, it is expected that the proposed scheme would be either completely screened or considerably restricted in views from these routes. The effects, therefore, would equate to a 'no change' scenario or moderate at Year 5 at most (refer to Tabel 1 for the summary of visual effects). It is important to stress that the moderate effects would be only experienced from very specific highly localised sections of these PRoWs, and such effects are not representative of the overall effects brought about by the proposed scheme.

## Residential Receptors

- 5.76. A detailed assessment of views from residential properties has been excluded from this LVIA as these are considered to be private views. The scope of work of this LVIA did not include a separate Residential Visual Amenity Study, but the issue of residential receptors is covered, in broad terms, in the following paragraphs. The assessment is based on the site visit and



level of inter-visibility as observed from within the site and PRoWs towards the nearby properties. Photographs towards these properties have not been included in this LVIA due to privacy concerns and the assessment is based on on-site observations.

5.77. As previously noted, the majority of residential properties within the surrounding area would not have views of the proposed development due to the orientation of the properties in relation to other nearby built form, and vegetative cover within the site and around it.

5.78. None of the identified residential properties would gain any views of the proposed scheme from their ground floor windows or curtilage. Views from the upper floors are considered to be less sensitive – as the upper floors are likely to comprise bedrooms and bathrooms rather than sitting rooms where the outlook is the primary focus. In addition, views towards the proposed scheme are likely to be limited to a specific direction of view with the introduced infrastructure visible over the boundary hedgerows and amongst tree canopies. The proposed scheme is unlikely to be seen in its entirety and views from the upper floors would be limited to specific small parts of the site only, rather than its full extent. This is particularly applicable to the residential properties in Talbot’s End: Varley Farm, Faith Cottage, The Gables & Brew House, and Talebrocke. The residents at Heathend Farm are likely to have a slightly more open aspect – Viewpoint 10 serves as a proxy view.

5.79. It is predicted that the degree of change would vary:

- the majority of the identified residential receptors – views from the upper floors, would be subject to a low magnitude of change at most, with effects moderate at Year 1.
- residents at Heathend Farm – views from the upper floors, are likely to experience a medium magnitude of change, with effects major at Year 1.
- On that basis, the effects would be moderate

5.80. It is predicted that once the proposed mitigation measures have matured, i.e., boundary hedgerows allowed to grow out to screen the solar modules, the magnitude of change and effects would generally diminish to negligible neutral. The residents at Heathend Farm may experience moderate residual effects due to proximity and limited tree cover along their sight lines.

## Summary of Visual Effects

5.81. Based on the site survey and viewpoint analysis (as summarised in Table 1 below), it is evident that the proposed development would be well contained due to:

- the generally low lying and level topography across the site.
- generally low level of the proposed solar modules and inverters (3.5m to 3m high respectively).
- the generally strong field boundary vegetation within the site and surrounding landscape.

5.82. The majority of the identified and assessed sensitive visual receptors, which would undergo notable effects, are located within the immediate environs of the site, typically located





immediately next to or in close proximity. More distant receptors would generally undergo a lower degree of change.

- 5.83. By Year 5, only receptors within the site or those overlooking the site – from two specific locations only, would undergo any notable effects: those who cross the site along PRow OCR/17 and LWR/3, and the elevated section of OCR/13 and LWR/3 near West End – highly localised moderate adverse effects.



Table 1: Summary Table – Viewpoint Assessment

Visual Receptor	Value of View (Low/Medium/High)	Susceptibility of Visual Receptor (Low/Medium/High)	Sensitivity of Visual Receptor (Low/Medium/High)	Change to View (Year 1)	Degree of Effect (Year 1)	Change to View (Year 5)	Degree of Effect (Year 5)
<b>Viewpoints</b>							
Viewpoint 1	Medium	High	High	Negligible	Negligible Neutral	No change	No effects
Viewpoint 2	Medium	High	High	Medium	Major Adverse	Low	Moderate Adverse
Viewpoint 3	Medium	High	High	Medium	Major Adverse	Low	Moderate Adverse
Viewpoint 4	Medium	High	High	Negligible	Negligible Neutral	Negligible	Negligible Neutral
Viewpoint 5	Medium	High	High	No change	No effects	No change	No effects
Viewpoint 6	Medium	Medium	Medium	No change	No effects	No change	No effects
Viewpoint 7	Medium	High	High	Negligible	Negligible Neutral	No change	No effects
Viewpoint 8	Medium	High	High	Negligible	Negligible Neutral	No change	No effects
Viewpoint 9	Medium	High	High	High	Major Adverse	Low	Moderate Adverse
Viewpoint 10	Medium	High	High	High	Major Adverse	Negligible	Negligible Neutral
Viewpoint 11	Medium	High	High	High	Major Adverse	Low	Moderate Adverse

## 6. Cumulative Assessment

- 6.1. With respect to cumulative effects on landscape resources the GLVIA3 states in its paragraph 7.19:

***“Cumulative landscape effects may result from adding new types of change or from increasing or extending the effects of the main project when it is considered in isolation. For example, the landscape effects of the main project may be judged of relatively low significance when taken on their own, but when taken together with the effects of other schemes, usually of the same type, the cumulative landscape effects may become more significant.”***

- 6.2. With respect to visual matters, cumulative effects arise where the visibility of other proposals overlaps with that of the proposed development to incur an incremental effect. Cumulative effects relate to landscape character and visual amenity. Within cumulative assessment, the proposals may be viewed in combination, in succession, or sequentially.
- 6.3. Cumulative effects arise as a result of more than one development being present, under construction or operation, giving rise to combined effects, so that the cumulative developments influence the landscape character and/ or are experienced at proximity where they may have a greater incremental effect.
- 6.4. This means that the addition of the proposed Varley Solar Farm to a situation where other solar farms are apparent may result in a greater effect than where the Varley Solar Farm is seen in isolation. Based on the pre-application response from the Council and as confirmed by the desktop studies carried out at the time (July 2022) it has been determined that the approved solar farm at Newlands Farm, Wickwar (P20/24180/F) located to the south of the site is the only relevant scheme for the purpose of this cumulative assessment. The cumulative baseline search was limited to the vale landscape that surrounds the site. Any cumulative schemes located beyond the rising landform to the west: Priest Wood and Abbots-side Hill, to the north: Wicks Hill and higher ground around Bibstone and Brand Wood , to the east: higher ground around the Wickwar Quarry, and to the south east: higher ground around West End, would not exhibit any inter-visibility and would fall within a different type of landscape.
- 6.5. The cumulative assessment covers the potential long term cumulative effects on the landscape character and visual receptors during the operational stage of the proposed development. Potential cumulative effects can be also generated at the construction stage where the construction areas of two or more cumulative schemes physically overlaps and affect the associated landscape features such as vegetation, landform, or other physical features. Such effects, however, are unlikely to arise as the application boundary and construction areas for the proposed Varley Solar Farm do not overlap with the cumulative solar farm at Newlands Farm, Wickwar. Therefore, cumulative effects upon the landscape elements are not included in the cumulative assessment presented in this LVIA.
- 6.6. In summary, potential cumulative landscape character and visual effects during the construction and decommissioning stages are excluded from this LVIA, being of short duration and likely to be lower or similar to those assessed at the operational stage. Such effects, however, can be determined by proxy, based on the cumulative assessment of the operational stage of the proposed development.

**Approved solar farm at Newlands Farm, Wickwar (P20/24180/F).**

- 6.7. The cumulative assessment is supported by a number of plans extracted from the planning application documents prepared for the approved solar farm at Newlands Farm, Wickwar (P20/24180/F). These are included in Appendix 3 to this LVIA.
- 6.8. Based on the application drawings, available on the Council’s website, the approved solar farm at Newlands Farm, Wickwar would have the following parameters (also refer to Plate 13 below and Appendix 3):
- Solar modules arranged in south facing strings over 16 medium to small scale fields.
  - Solar panels of maximum 2.5m height.
  - Transformer Station of up to 2.4m in height, between 2.15 and 3.38m wide.
  - 1.8m high mesh fence with timber poles 2.1m high.
  - 3.5m high CCTV cameras on steel posts.



*Plate 13: Extract from the Landscape Materplan prepared by The Landmark Practice (drawing reference number 3255\_L\_SW\_O\_01 Rev H).*

- 6.9. According to the submitted Design and Access Statement, the cumulative solar farm would be operational for 40 years, and decommissioned at the end of its operational stage, with the site restored to its previous use. Access throughout the operational phase would be via Rag Lane and through the gated access from Bagstone Road.

- 6.10. The mitigation planting appears to be simple and limited, and includes hedgerows and hedgerow trees along certain perimeter boundaries. It appears that the existing PRowS crossing the scheme would be enclosed by new structural planting to limit views of the development.
- 6.11. The LVIA for the approved solar farm at Newlands Farm, Wickwar included the assessment of 18 no. of viewpoints, the majority of which were located in the immediate environs of the site. The assessment also included more distant locations: Viewpoints 7 and 8; and very distant locations in the eastern part of the study area: Viewpoints 9, 10, and 11, all of which were located within the scheme's ZTV.
- 6.12. These viewpoints and the assessment conducted by The Landmark Practice have been reviewed as part of the desktop research to inform Pegasus' cumulative assessment.

## Landscape Character Effects

- 6.13. The proposed Varley Solar Farm and cumulative solar farm at Newlands Farm, Wickwar fall within the same NCA 118: Bristol, Avon Valleys and Ridges.
- 6.14. On a district level both schemes fall within the same LCA 8 Yate Vale identified in the published *South Gloucestershire Landscape Character Assessment* SPD and discussed in Section 4 of this LVIA. The LVIA for the approved solar farm at Newlands Farm, Wickwar concluded that the sensitivity of the host landscape LCA 8 Yate Vale is medium. This is reflective of Pegasus' assessment.
- 6.15. With regard to the effects of the approved scheme upon the host LCA 8 Yate Vale, when judged in isolation, the LVIA by The Landmark Practice concluded minor adverse effects:

***“The proposed development is unlikely to greatly impact upon the character of LCA 8 Yate Vale, other than to alter the character of fields which are well enclosed in the wider landscape. The site extends across a relatively large development area, the PV panels and associated development are of a low scale and the proposed development will be long term duration but is reversible. Due to the limited localised changes, the landscape effects for all periods are assessed as Minor adverse for the wider LCA 8 Yate Vale within which the site is located. The changes may be slightly more pronounced and experienced across a wider area in winter, however due to the layers of vegetation the site would be filtered, remain well enclosed and would not have a notable effect on the landscape.”***

- 6.16. The cumulative assessment carried out by The Landmark Practice in their LVIA is not considered relevant to this LVIA.
- 6.17. The introduced Varley Solar Farm would theoretically reinforce the presence of solar energy developments in the local area. Although physically present, the addition of the proposed development would not manifest itself in the landscape due to the relatively strong boundary vegetation associated with the site and that present within the intervening areas. The proposed scheme would be curtailed by the existing vegetation that compartmentalise the site. The scale of the landscape would be altered to a very limited degree, but the physical and visual segregation between the two would help retain the underlying agricultural character of the local landscape. Other landscape factors, that collectively define the character of the local landscape, e.g., skylines, inter-visibility, features and landmarks,



landform and perceptual qualities, and its condition would be largely retained and the introduced change of limited influence in cumulative terms.

6.18. As outlined in the Planning Practice Guidelines (PPG):

***“However, the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively. (...) However, in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography the area of a zone of visual influence could be zero.”***

6.19. The proposed Varley Solar Farm responds positively to the objectives of the PPG and utilises land that is visually contained by its boundary vegetation and physically and visually segregated from the central and southern part of the host LCA 8 by the rising ground near West End. The proposed mitigation planting helps enhance and improve the condition of the local landscape reducing the adverse effect on the landscape character to its immediate setting. In cumulative terms, assuming that the approved solar farm at Newlands Farm, Wickwar is operational, the introduction of the proposed Varley Solar Farm would have a low magnitude of change with the cumulative effects minor adverse.

## Visual Effects

6.20. With regard to the sensitivity of the identified receptors, in accordance with Pegasus’ methodology and assessment carried out in Section 5 of this LVIA, PRoW users are considered to be of high sensitivity with road users being of medium sensitivity.

6.21. It is important to state, at the outset, that none of the viewpoints selected by Pegasus and assessed in the preceding section 5, offer views of the landscape associated with the approved solar farm at Newlands Farm, Wickwar. Whilst the ZTV for the approved solar farm at Newlands Farm, Wickwar extends across the site and surrounding low lying vale, in reality the higher ground around West End segregates the two and no views were gained during the site visit.

6.22. In order to establish the potential for cumulative visual effects from other parts of the LCA 8, the following table reviews the viewpoints selected and assessed by The Landmark Practice in their LVIA.

Table 2: Review of potential cumulative visual effects –Newlands Farm, Wickwar LVIA Viewpoints

Newlands Farm, Wickwar LVIA Viewpoints	Is the viewpoint covered by the Varley Solar Farm SZTV Figure 4 LVIA?	Potential for cumulative views with the Varley Solar Farm?
Viewpoint 1	Yes.  Refer to Varley Solar Farm Viewpoint 5.	No, given lack of views from Cowship Lane, Rag Lane, and Viewpoint 5 there is <b>no potential</b> for any inter-visibility and <b>no cumulative effects</b> .

Viewpoint 2	No.	Lack of inter-visibility, <b>no cumulative effects</b> .
Viewpoint 3	No.	Lack of inter-visibility, <b>no cumulative effects</b> .
Viewpoint 4	Yes.  Near Varley Solar Farm Viewpoint 6.	No, given lack of views from Cowship Lane and Viewpoint 6 there is <b>no potential</b> for any inter-visibility and <b>no cumulative effects</b> .
Viewpoint 5	Yes, extremely limited, and patchy ZTV between West End and Westend Farm.	Highly unlikely given the visibility of the proposed Varley Solar Farm from Pegasus' Viewpoint 4. Visual effects, if any, are likely to be <b>inconsequential</b> – negligible neutral at most.
Viewpoint 6	Yes, but heavily reduced with this viewpoint falling on the very edge of Pegasus' SZTV.	Highly unlikely given the well treed context and lack of views of the low lying vale to the north, as illustrated by photography by The Landmark Practice. Visual effects, if any, are likely to be <b>inconsequential</b> – negligible neutral at most.
Viewpoint 7	Yes, but very patchy with this viewpoint falling on the very edge of Pegasus' SZTV.	Highly unlikely given the well treed context and lack of views of the approved scheme and no views of the low lying vale around the site – as illustrated by photography by The Landmark Practice. Visual effects, if any, are likely to be <b>inconsequential</b> – negligible neutral at most.
Viewpoint 8	Yes, but very patchy with this viewpoint falling on the very edge of Pegasus' SZTV.	Highly unlikely given lack of views of the approved scheme and no views of the low lying vale around the site – as illustrated by photography by The Landmark Practice. Built form on the higher ground in West End visible, but not the vale further north. Visual effects, if any, are likely to be <b>inconsequential</b> – negligible neutral at most.
Viewpoint 9	Outside Pegasus' ZTV plan but likely to fall within the ZTV.	This viewpoint is located approx. 6.5km away from Newlands Farm. The proposed Varley Solar Farm would be located slightly closer but well outside

		of the 3km study area. The low landscape is wooded, and no features associated with the site or Talbot's Ed are identifiable. <b>No potential</b> for any inter-visibility and <b>no cumulative effects</b> .
Viewpoint 10	Outside Pegasus' ZTV plan but likely to fall within the ZTV.	This viewpoint is located approx. 5.3km away from Newlands Farm. The proposed Varley Solar Farm would be more distant. The intervening landscape is wooded, and no features associated with the site or Talbot's Ed are identifiable. The site of the approved scheme is not visible. <b>No potential</b> for any inter-visibility and <b>no cumulative effects</b> .
Viewpoint 11	Outside Pegasus' ZTV plan but likely to fall within the ZTV.	This viewpoint is located approx. 6km away from Newlands Farm. The proposed Varley Solar Farm would be located further away. The landscape is wooded, and no features associated with the site or Talbot's Ed are identifiable. <b>No potential</b> for any inter-visibility and <b>no cumulative effects</b> .
Viewpoint 12	No.	Lack of inter-visibility, <b>no cumulative effects</b> .
Viewpoint 13	Yes.  Refer to Varley Solar Farm Viewpoint 5.	No, given lack of views from Cowship Lane, Rag Lane, and Viewpoint 5 there is <b>no potential</b> for any inter-visibility and <b>no cumulative effects</b> .
Viewpoint 14	Yes.  Refer to Varley Solar Farm Viewpoint 5.	No, given lack of views from Cowship Lane, Rag Lane, and Viewpoint 5 there is <b>no potential</b> for any inter-visibility and <b>no cumulative effects</b> .
Viewpoint 15	No.	Lack of inter-visibility, <b>no cumulative effects</b> .
Viewpoint 16	No.	Lack of inter-visibility, <b>no cumulative effects</b> .

Viewpoint 17	No.	Lack of inter-visibility, <b>no cumulative effects.</b>
Viewpoint 18	Yes, patches of ZTV near Westend Farm.	Highly unlikely given the visibility of the proposed Varley Solar Farm from Pegasus' Viewpoint 4. Visual effects, if any, are likely to be <b>inconsequential</b> – negligible neutral at most.

6.23. It transpires that the addition of the proposed Varley Solar Farm would not have any cumulative visual effects upon the viewpoints and visual receptors identified by Pegasus and assessed in section 5 of this LVIA, and viewpoints considered in the LVIA for the approved solar farm at Newlands Farm, Wickwar, or effects would not be discernible.

## Summary of Cumulative Effects

6.24. The proposed development would result in minor adverse cumulative effects upon the character of the northern most part of the LCA 8 Yate Vale, i.e., that immediately between the two schemes.

6.25. Based on the on-site analysis and assessment of the identified viewpoints the proposed development would not have any cumulative effects or effects would be negligible neutral at most, albeit this is a precautionary approach assuming that some extremely limited inter-visibility may exist in winter views.

6.26. With regard to the PRoW users, it is clear that those present within the vale landscape would not experience any cumulative effects due to lack on inter-visibility. Similarly, views from the elevated PRoWs to the north east – near Brand Wood, and south east of the site – near West End, would not be gained due to the vegetative cover and no views of the approved cumulative site.

## 7. Conclusions

7.1. This LVIA has been prepared in support of a planning application for the proposed Varley Solar Farm, located on land at Varley Farm, Talbots End, Cromhall, South Gloucestershire, GL12 8AJ. The site lies outside of any landscape, heritage, or nature conservation designations. It comprises a number of small to medium scale field enclosures of agricultural land, combined in a single development parcel. The site is characterised by strong field boundary vegetation with hedgerows generally over 3m in height and with frequent mature and tall trees.

7.2. The surrounding landscape is predominantly agricultural vale with the nearby Wickwar Quarry forming a detracting feature. Small scale settlements are located along minor roads; isolated properties re not evident in the immediate area. Wickwar Ridge is a positive feature but is located beyond the higher ground near West End and there is evident lack of any inter-visibility with the site or visual relationship between the two.

7.3. The proposed development comprises solar panels up to 3.5m in height, together with associated infrastructure – access tracks, fencing, transformers and a sub-station to connect the facility to the National Grid. The proposals also provide landscape mitigation



measures, including enhanced management of the existing field boundary hedgerow to increase their height. The PRowS that cross the site would be enclosed by new hedgerows with generous green corridors separating the high sensitivity receptors from the proposed infrastructure.

## Effects on Landscape Elements

- 7.4. The proposed development has been assessed as having:
- minor adverse effect upon the groundcover vegetation of the site.
  - negligible neutral effect on the topography of the site.
  - major beneficial effect on the hedgerow resource within the site.
  - no physical direct effects on the PRowS within or abutting the site.
  - no adverse physical direct effect on water features as landscape features.

## Effects on Landscape Character

- 7.5. The proposed development has been assessed as having minor adverse effects upon the character of the host LCA 8 Yate Vale.
- 7.6. None of the adjacent LCAs, such as LCA 5 Wickwar Ridge & Vale and LCA 7 Falfield Vale have beneficial judged to experience any direct physical effects, with the only potential change limited to its perceptual and experiential qualities. Given the very limited theoretical visibility of the proposed development, and as confirmed by the visual assessment views from the neighbouring LCAs are extremely limited to two specific areas: from the higher ground to the north east of the site – near Brand Wood, and from the south east on the northern edge of West End. In both instances, views are heavily restricted and are not representative of the general lack of inter-visibility between the proposed development and the two LCAs. For that reason, the landscape character effects upon the neighbouring LCA 5 Wickwar Ridge & Vale and LCA 7 Falfield Vale have been assessed as negligible neutral.
- 7.7. The Proposed Development would physically introduce new elements into the receiving landscape, but its presence would not manifest itself in the wider landscape beyond the site and its environs due to the level of enclosure within and around the site. The existing landscape framework would be further strengthened with the proposed mitigation measures, helping to retain the underlying agricultural character of the surrounding landscape.
- 7.8. The proposed development has been considered to fit well into the existing field pattern and scale of the landscape, does not negatively altering the field boundaries, and being respectful of the existing landscape features that characterise this part of the landscape. Most importantly the assessment has concluded that the key characteristics, identified in the published landscape character assessments, would not be redefined and would continue to characterise the local landscape. The existing landscape character has been judged to be robust enough to withstand the introduced changes.



## Effects on Visual Amenity

- 7.9. The proposed development has been described as being visually well contained due to existing well developed hedgerows within and around the site, and in the surrounding landscape, low lying and level topography of the vale. Views are foreshortened and generally terminate on the intervening vegetation or travel towards the rising landscape in the mid to distant landscape.
- 7.10. The majority of the identified visual receptors, which have been assessed as subject to notable effects are located either within the site or immediately next to it. In addition, two viewpoints in the medium range landscape have been assessed as offering less restricted views, due to the change in levels with receptors overlooking the vale and gaining views of some parts of the proposed development.
- 7.11. It is important to reiterate that such assessment is not representative of the general visibility of the proposed scheme. The assessment has concluded that a number of close range receptors would not gain views of the scheme at all, due to the vegetative screening. This includes views from PRowS around Bibstone, Wick's Hill, Cromhall, Talbot's End and Heath End, including PRowS west of the B4058. Furthermore, receptors around West End and along Cowship Lane and further south have been assessed as not experiencing any change to their views. This is a considerable advantage and consideration in terms of landscape and visual assessment.
- 7.12. The assessment has also concluded that by Year 5, the majority of adverse effects would diminish to negligible/neutral. Only those receptors that cross the site or are in very close proximity to the south, and on the nearby higher ground may experience some change with effects judged to be moderate adverse.
- 7.13. With regard to the cumulative assessment, the proposed development has been considered against the approved solar farm at Newlands Farm, Wickwar, located to the south of Cowship Lane.
- 7.14. The cumulative assessment has concluded that the introduction of the proposed development would result in minor adverse cumulative effects upon the character of the northern most part of the LCA 8 Yate Vale, i.e., that between the proposed scheme and approved scheme.
- 7.15. Based on the on-site analysis and assessment of the identified viewpoints the proposed development would not result in any adverse cumulative effects with some of the effects judged as negligible/neutral – as a precautionary approach.

## Conclusions

- 7.16. The proposed development has been considered in the context of the relevant planning policies and published landscape character assessments, and has been subject to a thorough on-site assessment. This LVIA has concluded that the proposed scheme can be effectively integrated and assimilated into the surrounding landscape with the adverse effects highly localised to the immediate environs only. The rural character of the medium and distant landscape would not be changed and would be preserved.



- 7.17. The combination of level vale landscape, strong field boundary vegetation, and rising ground to the north east, east, and south east serves to limiting inter-visibility within the surrounding landscape and visual receptors, such that any notable effects on landscape character and local visual amenity would generally be limited to the site and its immediate environs.