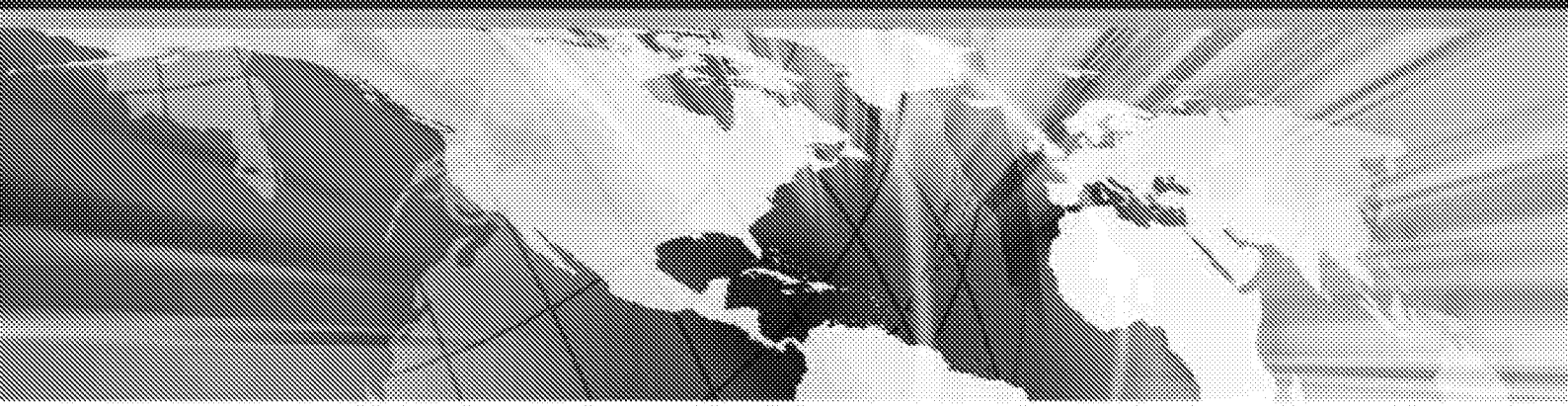
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LIGHTSOURCE RENEWABLE ENERGY LTD

Solar Farm on Land at Lower Farm, Yapton Lane, Walberton

Landscape and Visual Impact Assessment
Revision A

December 2014

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Landscape and Visual Impact Assessment
Revision A

December 2014

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WASTE RESOURCE MANAGEMENT

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1 INTRODUCTION

1.1.1 This Landscape and Visual Impact Assessment (LVIA) identifies and assesses the likely landscape and visual effects of the proposed development of a solar farm at Lower Farm, Yapton Lane, Walberton, upon the site and surrounding area.

1.1.2 This assessment should be read in conjunction with the following technical appendices:

- Appendix 1 Methodology for producing ZTV
- Appendix 2 Methodology for producing photomontages
- Appendix 3 Potential visual impacts on the main settlements within the 5km study area and ZTV
- Appendix 4 Potential visual effects on individual properties within 2km of the site and the ZTV
- Appendix 5 Potential visual effects on the transport and rights of way network within the 5km study area and ZTV

2 DESCRIPTION OF THE DEVELOPMENT

2.1.1 The development is described more fully in the planning application and supporting statement but the visible components whose effects have been studied in this assessment are summarised here.

Construction phase

2.1.2 The anticipated construction period for the proposal would be approximately two to three months, during this time there would be:

- a temporary site compound with vehicle parking and storage areas;
- construction of a permanent track within the site if required;
- cable laying;
- the construction of the transformer and inverter stations, substations, communications building and storage shed;
- the installation of the solar panels
- the installation of the grid connection; and
- the installation of the surrounding security fence and cameras.

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Operational phase

2.1.3 The scheme consists of solar panels mounted in arrays, set out in rows running across the site west to east, tilted at a 25 degree angle, with an approximate height of 2.1m high (max) at the highest point. There would also be inverter and transformer stations, substations, communications building and storage shed. The solar panels would be dark blue in colour and would be in a matt finish. The ground fixings would be designed to minimise impacts and they would not require concrete foundations.

2.1.4 The site would be accessed from the north western corner of the site via the existing access track to Lower Farm off Yapton Lane. The solar panels and internal buildings would then be connected via a new track. Where possible, tracks would be left un-surfaced and would follow contours and hedge lines to minimise the visual impact.

2.1.5 In addition there would be an electrical connection to the grid. The precise route would be determined after the application for the solar farm is determined, in line with normal practice. There would be a substation and inverter cabinets on site and the solar panels would be connected to these by underground cables.

2.1.6 The site would be surrounded by deer fencing; approximately 2m (max) high with 4m wide double leaf gates at the site entrance. Several discreet security cameras would be mounted at various points around the site for monitoring purposes.

Decommissioning

2.1.7 The operational lifespan for the solar farm is 30 - 35 years, at the end of which it would be dismantled and the site restored or an application would be submitted to extend the life of the development. For the purposes of this chapter, it has been assumed the development would be dismantled and the site restored.

3 CONSULTATIONS

3.1 Pre-application consultation

3.1.1 A letter of pre-application advice was received on 19th August 2014 followed by a screening opinion received on 23rd September 2014 in which the development was screened as not requiring an Environmental Impact Assessment. Comments pertaining to landscape and visual impacts of the proposed development are summarised in the table below along with where in the report these comments have been addressed.

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Table 1
Summary of the landscape and visual comments made in the pre-application advice and screening response

Comment	Where this is addressed in the LVIA
The Government's planning advice indicates that planning authorities should continue to ensure that the quality and character of the wider countryside is protected, and where possible enhanced.	• Chapter 6
This policy informs that the Council will support renewable energy development that is located and designed to minimise impacts (including cumulative impact), takes into account the Council's landscape assessment and landscape sensitivity studies.	• Chapter 5 • Chapter 6
The nearest neighbouring residential properties are Lower Farm Cottages and Flint Cottage which are approximately 130 metres and 150 metres to the west of the site respectively. In this case, it is considered that the impacts of the proposal upon the amenities of residents of these neighbouring properties would be minimised by the distances maintained between them and the site and would be acceptable if the site is properly, and sympathetically screened.	• Chapter 6 • Planting Plan Figure 17
Planning policies and Central Government advice emphasise that the conservation of the natural beauty of the landscape and countryside should be given great weight in development control decisions. The Arun Landscape Study (2006) describes the prevalent character of the landscape within the immediate surrounding area as large scale enclosed farmland, this area is not recognised as having any special landscape value although the overall rurality of the surrounding area is a feature which must be protected. The Planning practice guidance for renewable and low carbon energy (para. 26) states that large scale solar farms can have a negative impact on the rural environment, particularly in very undulating surfaces. However, it goes on to say that visual impact can be properly addressed within the landscape if well planned and well screened. It is felt that the development could potentially be accommodated within the field with an acceptable visual impact due to the topography of the surrounding area, which is predominantly flat, the modest height of the mounted panels and the fact that the field is set back away from roads and footpaths. Visual impact would need to be further reduced through the provision of a suitable landscaping and screening scheme, details of which would need to accompany any application. This is an initial opinion taken following a visit made to the site. Any forthcoming application would need to be accompanied by a full viewpoint assessment as well as details of a zone of theoretical visibility in order for the Local Planning Authority to properly assess potential impact upon the immediate, and wider landscape character.	• Chapter 6 • Viewpoints 1 to 8: Figures 7-16 • Planting Plan Figure 17
A full viewpoint assessment should accompany the application, as well as details of a zone of theoretical visibility should be provided in order that the Local Planning Authority can fully assess potential landscape impact.	• ZTV: Figure 1 • Viewpoints 1 to 8: Figures 7-16
Details of an effective landscaping scheme that will provide screening for the development and be compatible with the rural character and appearance of the surrounding environment must be provided.	• Planting Plan: Figure 17

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4 METHODOLOGY

4.1 General approach

4.1.1 Landscape effects associated with a development relate to changes to the fabric, character and quality of the landscape as a resource and how it is experienced. This requires consideration of the character of the landscape, the elements and features that it contains, and any value attached to the landscape (whether formally or informally).

4.1.2 Landscape assessment studies:

- direct effects upon specific landscape elements, especially prominent and eye catching features;
- change in character, which is the distinct, recognisable and consistent pattern of elements that creates distinctiveness and a sense of place;
- subtle effects that contribute towards the experience of intangible characteristics such as tranquillity, wildness and cultural associations; and
- effects on designated landscapes, conservation sites, and other acknowledged special areas of interest.

4.1.3 Visual effects relate closely to landscape effects, but they concern changes in views and visual amenity. Visual assessment concerns people's perception and response to changes in visual amenity. Effects may result from new landscape elements that cause visual intrusion or new features that obstruct views across the landscape.

4.1.4 Both landscape and visual effects can be adverse, beneficial or neutral, short, medium or long term, permanent or temporary, reversible or irreversible, direct (an effect that is directly attributable to the proposed development) or indirect (effects resulting indirectly from the development as a consequence of the direct effects), and cumulative, relating to additional changes that may arise when the proposed development is considered in conjunction with other similar developments (see chapter 9).

4.1.5 The LVIA was carried out using a combination of site and desk based survey and analysis. The methodology used followed recommendations and guidance set out in the following reports:

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- Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA 3)[1]; and
- Landscape Character Assessment Guidance[2].

4.1.6 The effects of a development on landscape character and on visual amenity are reported separately, in accordance with GLVIA 3.

4.1.7 GLVIA 3 and the Statement of Clarification 1/13 make clear that for non-EIA developments the landscape and visual impact appraisal should consider all types of effects: adverse and beneficial, direct and indirect, and long and short term, as well as cumulative effects. However, none of these effects should be given a judgement involving the terms 'significant' or 'significance'. The GLVIA 3 also stresses that the approach to the assessment needs to be proportionate to the scale of the project being assessed and the nature of the likely effects.

4.1.8 The Landscape Institute produced Advice Note 01/113 to advise its members on the use of photography and photomontage in landscape and visual assessment; the photographs in this LVIA have been produced and presented in accordance with this advice.

4.2 The study area

4.2.1 The landscape and visual appraisal considers the site and its surroundings, encompassing an area within a 5km radius of the outermost edge of the development, as it is considered that beyond 5km the development would not result in noticeable effects.

4.3 Thresholds and criteria

4.3.1 GLVIA 3 (paragraph 1.20) states that the guidance is "not intended to be prescriptive, in that it does not provide a 'recipe' that can be followed in every situation. It is always the primary responsibility of any landscape professional carrying out an assessment to ensure that the approach and methodology adopted are appropriate to the particular circumstances." This assessment has therefore defined a set of criteria to assess the potential landscape and visual effects of the proposed development.

[1] Guidelines for Landscape and Visual Impact Assessment, Third Edition, by the Landscape Institute and Institute of Environmental Management and Assessment (2013)

[2] Landscape Character Assessment Guidance for England and Scotland (2002), Countryside Agency in conjunction with Scottish Natural Heritage

[3] The use of photography and photomontage in landscape and visual assessment, Landscape Institute Advice Note 01/11 (March 2011)

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Methodology for the assessment of landscape effects

4.3.2 The level of the landscape effects identified is determined by a consideration of the sensitivity of the landscape receptors and the magnitude of the effects on the landscape.

4.3.3 The nature or sensitivity of a landscape receptor combines judgements of their susceptibility to the type of change or development proposed and the value attached to the landscape, as defined in the GLVIA glossary and in paragraph 5.39 of GLVIA 3. Paragraph 5.39 of GLVIA 3 also states that LVIA sensitivity is similar to the concept of landscape sensitivity used in landscape planning, but is not the same as it is specific to the particular project or development proposed and the location in question. Thus an appraisal of sensitivity is not strictly part of the initial baseline study of landscape character; it is considered as part of the appraisal of effects of the development.

4.3.4 The nature or magnitude of the effects on the landscape receptors depends upon the size or scale of the changes, the geographical extent of the area influenced, and the duration and reversibility of the effects.

4.3.5 The landscape receptors include the landscape character of the site, the Landscape Character Area (LCA) the site is within, the surrounding LCAs and any designated landscapes within the 5km study area; this includes the effect on the landscape character of any Registered Historic Parks and Gardens within the study area. The impacts on the visual amenity of visitors to Historic Parks and Gardens, which are open to the public, are addressed in the visual impact appraisal section of this report. The effects on the sites and settings of Historic Parks and Gardens as designated heritage assets have been addressed by the Cultural Heritage appraisal. Similarly the visual effects on residents of Listed Buildings is assessed in the visual impact assessment and the effects on the setting of these as heritage assets is assessed in the Cultural Heritage appraisal.

Susceptibility to change

4.3.6 This is defined as the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or any particular aesthetic and perceptual aspects) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies (see paragraph 5.40 of GLVIA 3).

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Landscape value

4.3.7 Appraisal of value is concerned with the relative value attached to different landscapes by society, recognising (in line with the European Landscape Convention) that all landscapes are important. A consideration of value at the baseline stage informs judgements on the level of effects. Landscapes can be valued by different people for different reasons, connected to a range of factors including landscape quality (condition), scenic quality, rarity, representativeness, conservation interests, recreation value, perceptual aspects and associations (see GLVIA 3 Box 5.1 for definitions). This consensus can be recognised at a local, regional, national or international scale. Table 2 explains how criteria are applied to arrive at an evaluation of landscape value in this appraisal. It is derived from GLVIA 3.

Table 2
Criteria for the assessment of landscape value

Value	Typical criteria	Typical scale	Typical examples
High	• Very good condition, high importance, scenic quality, rarity • Limited potential for substitution	National, regional	National Park, Areas of Outstanding Natural Beauty (AONB), Registered Historic Parks and Gardens
Medium	• Reasonably good condition, medium importance, scenic quality, rarity • Some or good potential for substitution	Regional, local authority, local community	Undesignated but value expressed for instance in demonstrable use
Low	• Poor condition, low importance, scenic quality, rarity	Local community	Areas identified as having some redeeming feature or features and possibly identified for improvement
Very low	• Very poor condition, low importance, scenic quality, rarity	Local community	Areas identified for recovery

4.3.8 The EIA Regulations do not require study of whether a development complies with planning policy; this is also the case for a non-EIA LVIA. Planning policy is, however, important and relevant to LVIA when it is a recognition or reflection of the value placed upon a particular landscape or its attributes by society. Thus designations like National Parks and AONB have relevance since they identify a consensus about this aforesaid value. Reference to planning policy can therefore assist the assessor in identifying sensitive receptors.

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Sensitivity of the Landscape Resource to the Proposed Solar Farm Development

4.3.9 In the context of this development, the scale of the sensitivity to the proposed solar farm development is as outlined in Table 3 and is derived from GLVIA 3.

Table 3
Levels of Landscape Sensitivity to the Proposed Solar Farm Development

Level	Typical criteria
Low sensitivity	These landscapes are likely to be of low susceptibility to change and low value, have a strong sense of enclosure that reduces visual sensitivity, are likely to be already affected by man-made features, have reduced tranquillity, are likely to have little inter-visibility with adjacent landscapes and exhibit a low density of sensitive landscape areas/features.
Medium – low sensitivity	These landscapes are likely to be of medium to low susceptibility to change and medium to low value, have some enclosure, may already be affected by some man-made features, have little inter-visibility with adjacent landscapes or exhibit a moderate-low density of sensitive landscape areas/features.
Medium sensitivity	These landscapes are likely to be of medium susceptibility to change and medium value; they may have some enclosure, or be affected by some man-made features, or have little inter-visibility with adjacent landscapes and exhibit a moderate density of sensitive landscape areas/features.
Medium – high sensitivity	These landscapes are likely to be of medium to high susceptibility to change and medium to high value, they may be open or exposed and have few man-made features. They are often inter-visible with adjacent landscapes and exhibit a moderate-high density of sensitive landscape areas/features.
High sensitivity	These landscapes are likely to be of high susceptibility to change and high value, they may be open or exposed with a remote character and an absence of man-made features. They are often highly visible from adjacent landscapes and exhibit a high density of sensitive landscape areas/features.

Magnitude of landscape effects

4.3.10 Table 4 explains how criteria are applied to arrive at an assessment of magnitude and is derived from the GLVIA 3.

Table 4
Criteria for the assessment of magnitude of landscape effects

Level	Typical Criteria
High	• Total loss of or major alteration to key features or perceptual aspects of the baseline and/or the addition of new features considered to be totally uncharacteristic when set within the attributes of the receiving landscape • The effects would be of a large scale influencing several landscape character types/areas • The effects would be long term and/or irreversible
Medium	• Partial loss of or alteration to key features or perceptual aspects of the baseline and/or the addition of new features that may be prominent but may not necessarily be considered to be substantially uncharacteristic when set within the attributes of the receiving landscape

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Table 4 Criteria for the assessment of magnitude of landscape effects	
Level	**Typical Criteria**
	• The effects would be at the scale of the landscape character type/area within which the proposal lies • The effects would be medium term and/or partially reversible
Low	• Minor loss of or alteration to key features or perceptual aspects of the baseline and/or the addition of new features that may not necessarily be considered to be uncharacteristic when set within the attributes of the receiving landscape • The effects would be at the level of the immediate setting of the site • The effects would be short term and/or reversible
Negligible	• Very minor loss of or alteration to key features or perceptual aspects of the baseline and/or the addition of new features that are not uncharacteristic with the surrounding landscape - approximating the ' no change' situation • The effects would be at the site level, within the development site itself • The effects would be very short term and/or reversible

Overall level of the landscape effects

4.3.11 A consideration of the sensitivity of the landscape receptors to the development and the magnitude of the change resulting from the development, determines the overall level of the predicted impact. The relationship between sensitivity and magnitude to reach the level of effect is sometimes presented in the form of a matrix. However, such a matrix may lead to the same weighting of criteria, which might not always be appropriate and may lead to a formulaic approach; therefore descriptions of how the level of effect has been determined are provided (see paragraphs 3.34 and 3.35 of GLVIA 3).

4.3.12 Overall, effects may be adverse, neutral or beneficial, and are assigned a level on the scale: Imperceptible-Slight-Moderate-Substantial-Severe, taking into account mitigation measures, and different stages of the project lifecycle. Table 4 assigns typical criteria to each level, as applied in this appraisal, however it should be noted that various different scenarios of susceptibility to change, landscape value, the size or scale, geographical extent and/or duration and reversibility of effects could apply to result in effects as described in the appraisal; therefore the criteria in Table 5 are provided as typical examples. Intermediate levels, such as slight to moderate and moderate to substantial, may also apply.

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Table 5 Criteria for determining the overall level of landscape effects	
Level	**Typical criteria**
Severe	The proposals are wholly out of character with the existing situation, both locally and on the wider scale, and/or the landscape receptors are of high sensitivity
Substantial	The proposals have a large effect within the context of the wider area, and/or the landscape receptors are of high sensitivity
Moderate	The proposals have a noticeable effect within the context of the wider area, and/or the landscape receptors are of medium sensitivity
Slight	The proposals have some, but only a limited effect within the mainly local context, and/or the landscape receptors are of low sensitivity
Imperceptible	The degree of change is so small as to have little or no effect, and/or the landscape receptors are of low sensitivity

Methodology for the assessment of visual effects

4.3.13 As with landscape effects, a consideration of the sensitivity of visual receptors (people) and the magnitude of the change determines the level of the predicted effect on views and visual amenity.

4.3.14 The nature or sensitivity of the visual receptors considers their susceptibility to the type of change or development proposed and the value people attach to the affected views (GLVIA 3, paragraph 6.31).

4.3.15 The nature or magnitude of the effects on visual receptors depends upon the size or scale of the changes, the geographical extent of the area influenced, and the duration and reversibility of the effects. In visual assessment / appraisal, magnitude is also determined by the distance from the viewer, the extent of change in the field of vision, and the duration of activity apparent from each viewpoint, or from a sequence of points that may have transient views, for instance along a road.

Sensitivity of visual receptors

4.3.16 Visual receptors include the public or community at large, residents, visitors, workers and people travelling through the landscape. The types of viewers, the numbers, the duration of the view and the importance of the view or views of and from valued areas define the sensitivity of a visual receptor.

4.3.17 In the context of this development, the scale of the sensitivity of the visual receptors is as outlined in Table 6 and is derived from GLVIA 3.

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Table 6 Criteria for the assessment of sensitivity of visual receptors	
Level	**Typical criteria**
High	• Public views within areas of protected landscapes such as National Parks and AONBs • Users of outdoor recreational facilities including public rights of way, or visitors to heritage assets or other attractions whose attention or interest is focused on the landscape and where tolerance to change is likely to be low • Communities where the development results in changes in the landscape setting or valued views enjoyed by the community • Occupiers of residential properties with views affected by the development • Tourists travelling through or past the affected landscape in cars, on trains or other transport routes whose attention or interest is focused on the landscape and where tolerance to change is likely to be low
Medium	• People, such as commuters and hauliers (not tourists) travelling through or past the affected landscape in cars, on trains or other transport routes
Low	• People engaged in outdoor sport or recreation which does not involve or depend upon appreciation of views of the landscape • People at their place of work, or engaged in similar activities, whose attention may be focused on their work or activity, not their surroundings, and where setting is not important to the quality of working life • Views from urban roads, footways, railways and industrial areas whose attention may be focused away from the landscape and where tolerance to change is likely to be high

Magnitude of visual effects

4.3.18 Table 7 explains how criteria are applied to arrive at an assessment of magnitude and is derived from GLVIA 3.

Table 7 Criteria for the assessment of magnitude of visual effects	
Level	**Typical Criteria**
High	• Total loss of or major alteration to views and/or the addition of new features that would be very prominent, and/or would greatly contrast with the existing view • Full, open views, experienced for the majority of a journey or full duration of an activity • The views would be close, direct and/or totally occupied by the proposed development • The effects would be long term and/or irreversible
Medium	• Partial loss of or alteration to views and/or the addition of new features that would be prominent, and/or would contrast with the existing view • Partial views, experienced for part of a journey or activity • The views would be middle distance, partially oblique and/or partially occupied by the proposed development • The effects would be medium term and/or partially reversible

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Table 7 Criteria for the assessment of magnitude of visual effects	
Level	**Typical Criteria**
Low	• Minor loss of or alteration to views and/or the addition of new features that would not be prominent, and/or would not contrast with the existing view • Glimpsed views, experienced for a small part of a journey or activity • The views would be distant, oblique and/or only a small part of the view would be occupied by the proposed development • The effects would be short term and/or reversible
Negligible	• Very minor loss of or alteration to views and/or the addition of new features that would be almost imperceptible - approximating the ' no change' situation • Very brief glimpsed views • The views would be very distant, very oblique and/or only a tiny part of the view would be occupied by the proposed development • The effects would be very short term and/or reversible

4.3.19 Magnitude is influenced by the effects of distance, which can control how a solar farm is perceived, but how much of the solar farm is seen is also important. Whether the whole of the development is visible or just a small area influences the degree of change. The extent to which the development occupies the horizon is also a factor affecting its prominence. Magnitude can vary greatly in differing weather conditions. This appraisal has to take into account a worst-case scenario and the time duration it is experienced.

Overall level of the visual effects

4.3.20 As with landscape effects, a consideration of the sensitivity of the visual receptors to the development and the magnitude of the change resulting from the development, determines the level of the predicted impact. As noted above, a matrix is not used, descriptions of how the levels have been determined are provided.

4.3.21 Table 8 assigns typical criteria to each level for visual effects, as applied in this appraisal; however it should be noted that various different scenarios of susceptibility to change, the value of views, the size or scale, geographical extent and/or duration and reversibility of effects could apply to give rise to the effects as described in this appraisal; therefore the criteria in Table 8 are provided as typical examples, only. Intermediate levels, such as slight to moderate and moderate to substantial, may also apply.

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Table 8 Criteria for determining visual effects	
Level	**Typical criteria**
Severe	The proposals would dominate views and would be wholly out of character with the existing situation, the changes would be experienced by a very large number of people, and/or the visual receptors would be of high sensitivity to the changes.
Substantial	The proposals would be prominent and contrasting with the existing views, the changes would be experienced by a large number of people, and/or the visual receptors would be of high sensitivity to the changes.
Moderate	The proposals would be noticeable in views but not dominating, the changes would be experienced by a medium number of people, and/or the visual receptors would be of medium sensitivity to the changes.
Slight	The proposals would result in small changes to the views, the changes would be experienced by a small number of people, and/or the visual receptors would be of low sensitivity to the changes.
Imperceptible	The proposals would be imperceptible in views, the changes would be experienced by a very small number of people, and/or the visual receptors would be of low sensitivity to the changes.

4.4 Zone of Theoretical Visibility Mapping and Viewpoints

4.4.1 A desk based analysis was carried out to determine the bare ground zone of theoretical visibility (ZTV) of the proposed solar farm (Figure 1). Once this was established, a number of representative viewpoints were identified to illustrate the potential visual effects of the development (also shown on Figure 1). A series of photographs were taken from the representative viewpoints in October 2014 using a full frame digital SLR camera with a fixed 50mm lens, mounted on a stable, levelled tripod with a professional panoramic head attached. This positions the focal centre of the camera lens above the pivot of the tripod and allows the photographs to be stitched together accurately using photo editing software (Viewpoints 1 to 8 on Figures 7 to 14). The photographs illustrate views of potential receptors and show the site in the context of the surrounding landscape and settlements. The method of production of the ZTVs is explained in more detail in Appendix 1.

4.4.2 Each viewpoint figure includes the following information:

- a description of the location (receptor);
- the distance from the part of the application boundary closest to the viewpoint;
- a location map of the viewpoint;
- a description of the existing view, and those during construction and operation;
- descriptions of magnitude of effects and the sensitivity of the visual receptors;

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- mitigation measures;
- status of effects (temporary, permanent, reversible, irreversible); and
- a summary of the potential effect (adverse or beneficial).

4.4.3 It should be recognised that viewpoints are provided as part of an LVIA to be representative of the potential visibility of a development from the surrounding receptors, they are not intended to illustrate every possible view of a development.

4.5 Photomontages

4.5.1 The method of producing the photomontages is explained in detail in Appendix 2. The specific viewpoints were chosen because they were considered to be representative of an important / sensitive viewpoint. For each photomontage the photograph of the existing situation and proposed view are included.

4.5.2 Two photomontages have been produced, these are for Viewpoints 3, and 5 (Figures 15 and 16).

5 BASELINE

5.1 Landscape Character Baseline

5.1.1 This section firstly reviews the published landscape character information relevant to the 5km study area and the landscape designations and sensitive receptors. The site appraisal then informed a description of the existing baseline condition and character of the area within the vicinity of the site.

Published landscape character information of the 5km study area

5.1.2 The following studies provide a strategic assessment of the 5km radius study area (see Figures 5 and 6):

- The regional study developed as part of the Character of England project and published by the then Countryside Agency[4], now Natural England, has identified a number of National Character Areas (NCAs)
- The county level study called 'The West Sussex Landscape Character Assessment, November 2003'[5]

[4] Character of England project and published by the then Countryside Agency in 1999 and currently being updated by Natural England

[5] The West Sussex Landscape Character Assessment, November 2003, West Sussex Council

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- The district level study called 'Landscape and visual Amenity Aspects of Development Choices in Arun District, 2006' [6]

Natural England National Character Areas (NCAs)

5.1.3 The site lies within NCA126 South Coast Plain; the key characteristics of this are listed as:

- *The plain slopes gently southwards towards the coast. From the coastal plain edge there are long views towards the sea and the Isle of Wight beyond.*
- *The underlying geology of flinty marine and valley gravels extends several miles inland to the dip slope of the South Downs and the South Hampshire Lowlands. This gives rise to deep and well-drained high quality soils.*
- *In places, streams and rivers flow south from the higher land of the Downs to the sea.*

  Coastal inlets and 'harbours' contain a diverse landscape of narrow tidal creeks, mudflats, shingle beaches, dunes, grazing marshes and paddocks. These include the internationally important Chichester, Langstone, Portsmouth and Pagham harbours, the Hamble Estuary and the recent coastal realignment site at Medmerry between Chichester Harbour and Selsey.
- *There are stretches of farmed land between developed areas, often with large arable fields defined by low hedges or ditches.*
- *There are isolated remnants of coastal heath in the west.*
- *Sand dune grasses and intertidal marsh communities are characteristic of the coastline, while small areas of species-rich meadow remain inland.*
- *The coastline provides feeding grounds for internationally protected populations of overwintering waders and wildfowl and is also extensively used for recreation.*
- *Along the exposed, open coastal plain and shoreline, tree cover is limited to isolated wind-sculpted woodlands and shelterbelts.*
- *The area has significant urban development, with settlements along the coastline dominated by the Portsmouth conurbation, suburban villages and seaside towns including Bognor Regis, Littlehampton and Worthing linked by major road and rail systems.*

[6] Landscape and visual Ammenity Aspects of Development Choices in Arun District, 2006, Hankinson Duckett Associates on behalf of Arun District Council

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- *Historic fortifications along the coast include the Roman fort at Portchester and 19th-century defences and later naval installations built to protect the Portsmouth naval dockyard.*

The West Sussex Landscape Character Assessment, November 2003

5.1.4 The site sits within The West Sussex Landscape Character Assessment character area SC9: Chichester to Yapton Costal Plain. A description of the overall character of the area is as follows:

"This Character Area extends from Chichester in the west to the edge of the Arun Valley in the east, and around Bognor Regis to the south. Over time a large part of this area has been reclaimed from the sea, and remains below the current high spring tide level. It comprises a mainly flat, open landscape crossed by meandering rifes. Dominated by highly productive arable fields and modern farm buildings, it has a fragmented hedgerow and hedgerow tree pattern. The spire of Chichester Cathedral is a widely visible feature. Rows of large light reflecting glasshouses, equestrian facilities, horse paddocks and industrial buildings, for instance in the Ford and Tangmere areas, are strong suburban elements. Where these occur, they create visual confusion and poor definition between town and countryside, and erode distinctive landscape character. Major suburban settlements in the area are Tangmere, Barnham, Yapton, and Westergate. In contrast, there are areas of a smaller scale, more varied rural landscape with quiet hamlets and traditional villages enclosed by small pastures."

5.1.5 And the key characteristics of the area are listed as:

- *Low lying flat open landscape.*
- *Meandering rifes and straight drainage ditch systems, with associated unimproved grassland and edged by reed beds.*
- *A low density of hedgerows and hedgerow trees with occasional shelterbelts.*
- *Large-scale arable farming and market gardening. Extensive farms with both traditional and modern farm buildings and silos.*
- *Clusters of glasshouses.*
- *Scattered, historically nucleated villages with mixed building materials of flint, brick, half timber and stone.*
- *Large farmsteads along roads, and on dead-end tracks.*
- *Long views to Arundel, the Downs and to the distinctive spire of Chichester Cathedral.*

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- *The relatively open character of much of the area allows long views so that village church towers are important landmarks in views.*
- *Frequent urban fringe influences of horse paddocks, light industry and disused airfields, with busy minor and major roads.*
- *The urban fringes associated with Bognor are particularly obvious, with sporadic urban development in suburban settlements of Tangmere, Barnham,Yapton, and Westergate.*
- *Large gravel pit lakes around the edge of Chichester.*
- *Few trees or hedgerows, partly as a result of Dutch Elm Disease, from the 1970s and the Great Storm of 1987 and overall high quality agricultural land, although, where they do exist, they form prominent features.*
- *Light industry in the countryside at Ford and Tangmere.*

Landscape and visual Amenity Aspects of Development Choices in Arun District (2006)

5.1.6 This site is located across two character areas as described by the landscape character assessment: Binsted Upper Coastal Plain (26) and Withy Rife (28).

5.1.7 The Binsted Upper Coastal Plain (26) character area is described as:

- *an undulating agrarian landscape at the foot of the downs;*
- *a relatively large-scale, open arable fields on elevated ground, separated by 'hidden' valleys. Valley-sides typically pasture, golf course at north-west corner of LCA, abutts Avisford Park;*
- *rising ground to north substantially wooded, and contains views. Long views south and east towards Arun Valley and;*
- *a single track lane (Binsted Lane) with scattered development along it.*

5.1.8 The Withy Rife (28) character area is described as:

- *Prominent narrow valleys leading down from Downs to subtler, wider valley feature.*
- *Heavily vegetated with trees and scrub.*
- *Visibility within character area is very limited.*

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Landscape designations and sensitive receptors

5.1.9 The landscape designations and sensitive receptors are mapped on Figures 2 and 3. The designations and sensitive receptors within the 5km study area and ZTV relevant to this LVIA are the South Downs National Park and the Arundel Castle Registered Park and Garden.

The character of the site and its immediate vicinity

5.1.10 The following description of the existing baseline condition and character of the area within the vicinity of the site have been informed by a desk study followed by on-site appraisal carried out 25th October 2014.

Settlements and individual properties

5.1.11 The site is located in the Arun District along Yapton Lane between the villages of Walberton, approximately 0.9km to the north west of the site, and Yapton, approximately 0.7km to the south west of the site.

5.1.12 Arundel is located approximately 2.8km to the north east on the edge of the South Downs National Park.

5.1.13 Barnham sits approximately 0.8km to the west, Eastergate approximately 3.2km to the west and Westergate approximately 4.1km to west along the B2233.

5.1.14 The larger coastal towns of Littlehampton and Bognor Regis sit approximately 3.5km to the south east and 4km to the south west respectively.

5.1.15 There are numerous scattered private dwellings, farms and smaller communities within the area. Binsted and Tortington are small settlements that sit approximately 1km to the north of the site and 1.8km to the east of the site respectively.

5.1.16 The closest private dwellings and farms to the site include: properties along the Yapton Lane (B2132) approximately 180m from the sites western boundary; Lower Farm, on the sites north western boundary; Marsh Farm, approximately 0.4km to the east of the site; Walberton Farm, approximately 0.6km to the north of the site and; Oakley Cottages, approximately 0.6km to the north east of the site.

Landform and drainage

5.1.17 The topography of the study area is illustrated on Figure 6. The landscape of the site and its immediate surroundings is a coastal plain landscape. As such the topography is generally flat with a gradual slight fall towards the coast to the south. To the north, approximately 0.9km at the closest point, is the South Downs National Park. Moving

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north into the South Downs the landform begins to gradually rise through the wooded downlands of the southern area of the National Park that sit within the 5km study area.

5.1.18 The site sits at approximately 10mAOD at the north western corner and falls to approximately 5mAOD along the sites eastern boundary to a straight drainage system that runs parallel the sites eastern boundary south to a wetland area and ponds approximately 200m from the sites south-eastern corner.

Landcover and Land Use

5.1.19 The site is currently improved grassland and forms part of a mosaic of arable and improved grassland fields in the vicinity of the site. Hedgerow boundaries to the site are sparse and are of quite degraded condition with some sparsely planted hedgerow trees.

5.1.20 The landscape immediately to the west of site across Yapton Lane is in the use of commercial nurseries consisting predominantly of large glasshouses and sheds.

5.1.21 Woodland cover in the immediate vicinity of the site is quite sparse and limited to occasional hedgerow trees. A denser block of woodland sits along the sites southern boundary and continues east along the rail line merging with tree planting at Marsh Farm and Oakley Cottages to the east of the site and providing containment to the development area.

5.1.22 In the South Downs National Park to the north, large blocks of woodland are the dominant landcover making up the wooded downlands of the South Downs. The nearest to the site are Binsted Wood, Binsted Park Lake Copse and Tortington Common approximately 1km to the north east at the closest point.

Transport corridors and rights of way

5.1.23 The primary road within the vicinity of the site, and the road via which the site is accessed, is Yapton Lane (B2132) that passes the site approximately 0.2km to the west at the closest point. The B2132 connects the A29 to the north west of the site to Middleton-on-Sea on the south coast.

5.1.24 To the north the A27 passes the site east to west along the southern boundary of the South Downs National Park and serves as the primary transport corridor along the south coast connecting towns from Eastbourne to Portsmouth. The A27 passes the site approximately 2.1km to the north at the closest point.

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5.1.25 Only one National Cycle route passes within the study area: National Route 2 of the National Cycle Network – passes through Yapton, approximately 1.3km to the south of site at the closest point (see Figure 5).

5.1.26 Footpaths and bridleways are relatively scarce within the immediate vicinity of the site. The closest to the site include:

- PROW 328, footpath south of Walberton and east of Yapton Lane, approximately 0.6km to the north west of the site at the closest point.
- PROW 350, footpath connecting Binsted Lane and Yapton Lane at Blacksmith's Corner, passes the sites approximately 0.9km to the north at the closest point.
- PROW 355, footpath running between Oakley Cottages and Ford Lane, passes the site approximately 0.2km to the east of the site at the closest point.
- PROW 341, footpath east of Binsted, approximately 0.8km north east of the site at the closest point.

5.1.27 There are numerous other Public Rights of Way in the study area (see Figure 5), particularly to the north as they increase in density within the national park however, due to the low visual profile of the proposed development they would not experience effects as a result of the introduction of the proposed solar farm.

Character of the Site

5.1.28 The site is approximately 10ha and consists of a single agricultural field, which is currently improved grassland. These field is partially surrounded by hedgerows with sparsely planted hedgerow trees. The hedgerows are in relatively poor condition with many large gaps. Due to the relatively flat topography of the site inter-visibility with the surrounding landscape is scarce. The industrial large scale glasshouses of the commercial nurseries to the west of the site, west of Yapton Lane, and the woodland belt along the railway line to the south contain the site and provide screening to the west and south. Immediately to the west of the site is Yapton Lane (B2132), a busy single carriageway road. Traffic movement along Yapton Lane and the moderately frequent passing of trains along the railway line to the south of the site serve to reduce tranquillity and naturalness in this contained landscape.

5.1.29 The landscape of the National Park to north of the site has a notably distinct character to the landscape of the site and the very busy A27 provides a physical separation between the two.

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Landscape Value

5.1.30 The landscape in the vicinity of the site is of generally poor condition. Boundary hedgerows are degraded and gappy with sparse hedgerow tree planting. Additionally due to the low lying topography of the site and proximity of the site to a linear field drain to the east and wetland strip to the south the soil is fairly damp and groundcover patchy to the east and south of the site.

5.1.31 While the site is in close proximity to the South Downs National Park, a high value landscape approximately 1km to the north of the site at the closest point, it is contained and quite distinct from the designation and doesn't benefit from the National Park's highly valued landscape features.

5.1.32 Therefore, the site and its immediate surroundings are of low landscape value.

5.2 Visual Baseline

5.2.1 Inter-visibility across the area is limited by vegetative and built groundcover in the predominantly flat, low lying landscape surrounding the site. The visual envelope of the existing site is generally defined by:

- a low visual profile due to groundcover in a generally flat surrounding landscape;
- glasshouses of commercial nurseries to screening views from the west of the site; and
- woodland planting along railway line screening views from the south of the site;

5.2.2 To some extent this is illustrated by the ZTV, which is shown on Figure 1. However, this has been developed using bare ground topography and does not take into account the screening provided by landscape features such as vegetation and built development. Figure 1 shows a wide spread of theoretical visibility however, in reality, due to the predominantly flat and low lying coastal landscape of the site, screening provided by surrounding land cover is considerable and therefore visibility of the site is generally limited to within 2km.

6 ASSESSMENT OF EFFECTS

6.1 Assessment of Landscape Effects

6.1.1 The main impacts that would affect the landscape character of the site and the surrounding area as a result of the proposed solar farm are identified as:

- the temporary site access for construction;
- the temporary construction compound and stockpile area;

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- the construction of the solar farm;
- the installed solar panels across the site;
- the transformer and inverter stations and other buildings;
- the grid connection via a substation;
- the permanent site access and onsite tracks;
- the surrounding security fence; and
- the proposed hedgerow and hedgerow tree planting.

6.1.2 The impacts would be affected by the proposed timescales for the project. Impacts are reported with the proposed mitigation measures, as set out below, assumed to be in place.

Landscape susceptibility to change and sensitivity to the proposed development

6.1.3 It is considered that the landscape of the site and its surroundings are of low susceptibility to change arising from the proposed development due to the predominantly low, flat topography and surrounding groundcover providing containment and limiting perceptibility. Whilst the site is in close proximity to the South Downs National Park it is physically separated from this high value landscape by the manmade feature of the A75 and dense woodland along the southern boundary of the National Park. Therefore change resulting from the introduction of a solar farm to the landscape would be would impact only upon the landscape in the immediate vicinity of the site. Additionally, with the industrial land use of the commercial nursery adjacent to the site, the proposed land use change would not be entirely incongruous in the receiving landscape. The landscape's low susceptibility to change combined with assessment of low landscape value means the landscape of the site and its surroundings is of low sensitivity to the introduction of the proposed solar farm.

Potential landscape effects during construction

6.1.4 The anticipated construction period for the proposed development would be approximately 2 to 3 months. During this time, the impacts of the construction activities on the landscape character of the site and the surrounding area would be of a localised nature and adverse due to the disturbance caused over the short term by construction activities. The construction would affect both the physical characteristics of the site, such as the land use and pattern of the site, and the perceptual characteristics of the local area, such as tranquillity.

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6.1.5 The storage area and stockpiles of construction materials would introduce new incongruous elements, temporarily impacting upon the rural character of the site.

6.1.6 The magnitude of the effects of the construction phase on the landscape character would be medium as effects would be mostly limited to the vicinity of the site and the effects would be short term, therefore it is considered that the overall effects of the construction phase would not exceed moderate adverse.

6.1.7 Once the construction is complete the temporary compound would be restored.

Potential landscape effects during operation

Land use and Land Management

6.1.8 The site is currently managed as agricultural land. The proposed solar farm would introduce an additional land use, with the grassland surrounding the panels and outside the deer fence continuing to be managed as agricultural land through grazing. The magnitude of the effects on the land use and land management of the site and the immediate surroundings is assessed as medium to low and the overall effects on landscape character are assessed as slight to moderate adverse, due to the effects being of a localised nature and the continued use of land beneath the panels for agriculture.

New buildings / structures

6.1.9 The solar panels and associated buildings would introduce new features and structures, creating a new pattern which would add a different texture and colour to the existing landscape, causing a potentially adverse effect upon the naturalness of the area. However, the glasshouse structures associated with adjacent commercial nurseries are similar in structure, mass and rectilinear pattern reducing the magnitude of the landscape change as the introduction of new structures would not be entirely incongruous. The grid connection would be underground; therefore once the cables have been laid and the ground cover is restored there would be no operational impacts associated with this aspect of the proposed development.

6.1.10 The magnitude of the effects of the new buildings / structures into the site and the immediate surroundings is assessed as medium to low, as again, these changes would generally only be perceptible at the site and immediate surroundings level, therefore it is considered that the overall effects of these changes would not exceed slight to moderate adverse.

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Landscape Features

6.1.11 Notable landscape features within the site and immediate surroundings are the boundary hedgerows and hedgerow trees. These features would be retained and the degraded boundary hedgerows would be reinstated and planted with new hedgerow trees (Figure 17). These changes would be of low magnitude and would result in slight beneficial effects.

Lighting

6.1.12 There is no requirement to light the solar panels overnight for security as all security cameras would be fitted with infra-red lighting, therefore the impact of this change is assessed as negligible.

Overall operational effects on the landscape character of the Binsted Upper Coastal Plain (26) and Withy Rife (28) character areas

6.1.13 The operational solar farm would give rise to moderate adverse effects within the Binsted Upper Coastal Plain landscape character area. Impacts upon the character of the area would primarily result from changes in land use with the introduction of an energy generation land use into the agricultural baseline. The magnitude of this change would be reduced by the similar adjacent land use of the commercial nurseries within the adjacent Barnham-Yapton Coastal Plain character area.

6.1.14 The operational solar farm would give rise to slight adverse effects within the Withy Rife character area. The magnitude of the change would be much reduced due to lack of inter-visibility across the character area and the maintained use of the valley slopes as pasture land. Additionally the primary landscape features within the character area of woodland and wetland to the south of the site would be unaffected by the proposed operational solar farm.

6.1.15 Due to a lack of inter-visibility across the study area the effects of the introduction of a solar farm to the site would be localised and would not give rise to effects within adjacent character areas.

6.1.16 The reinstatement of boundary hedgerows and planting of new hedgerow trees would have a beneficial impact upon the landscape character of the site and the surrounding landscape.

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Effects on the landscape character of the South Downs National Park

6.1.17 Effects upon the character of the South Downs National Park would be negligible due to the lack of inter-visibility with the site (as represented by viewpoints 7 and 8, Figures 13 and 14).

Effects on the Arundel Castle Registered Park and Garden

6.1.18 Due to the significant mature woodland within and surrounding the Registered Park and Garden at Arundel Castle, providing containment and visual screening, there is no inter-visibility with the site. Effects on the designation would therefore be imperceptible.

Potential impacts upon landscape character after decommissioning

6.1.19 The solar farm would have an operational lifespan of approximately 30-35 years, at the end of which it would be dismantled and the site restored to agricultural land. The actual removal of the solar farm structures and infrastructural facilities at decommissioning would result in some temporary construction impacts but, once this is complete, there would be no adverse residual effects on the site or its setting. The landscape effects of the scheme are reversible in the longer term, though the beneficial effects associated with new planting provided within the site would be permanent.

6.2 Assessment of Visual Effects

6.2.1 Table 9 describes the main visible components of the proposed development, with a summary of the predicted effect and potential mitigation measures that can be implemented in order to reduce, remove or offset the level of effect.

Table 9
Visible component features of the development

Component	Predicted effect	Mitigation
Construction		
Construction vehicle movement	The increase in activity for a short time and temporary increase in amount of visual clutter would not exceed the areas capacity to absorb the additional movements.	Vehicle movements would be kept to a minimum.
Installation of the solar panels and associated structures and infrastructure	Construction impacts would be temporary; they would be adverse for visual receptors close to the site, but these impacts would reduce with distance and time.	Boundary vegetation would be retained and protected.

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Table 9 Visible component features of the development		
Component	**Predicted effect**	**Mitigation**
Operation		
The completed solar farm	The full extent of the solar farm would not be visible from any receptors in the surrounding area. The solar farm would be partially visible from some receptors close to the site. Elsewhere views are restricted by landform and intervening vegetation and therefore limited.	Boundary vegetation would be retained and enhanced by additional hedgerow tree planting and allowing hedgerows to grow to a height of 2.5 – 3m.
The associated structures and infrastructure	The associated structures would not be of a substantially larger scale than the panels themselves. The infrastructure would consist of underground cables and there is limited requirement for onsite access tracks	Boundary vegetation would be retained and enhanced as above.
Site access	The operational development would be accessed off the existing farm track off Yapton Lane to the north west of the development and would enter the development at the north west corner. The tracks would be constructed using compacted gravel, but would be seeded with grass once the construction is complete.	Boundary vegetation would be retained and enhanced as above.
Decommissioning		
Restoration	The solar panels and associated structures and infrastructure would be dismantled and removed from site leaving no residual impacts.	N/A

Potential visual effects during construction

6.2.2 Table 9 identifies possible visual effects during construction. Visual impacts are assumed to be adverse during the construction phase, but would be temporary.

Potential visual effects during operation

Residential receptors

6.2.3 These comprise individual properties and settlements, all of which are considered high sensitivity receptors. The settlements within 5km of the site which are also within the ZTV are assessed in detail in Appendix 3. Potential inter-visibility of other smaller settlements can be determined from the ZTV drawings. Individual and groups of properties within 2km of the site are also addressed in Appendix 4 in a similar way.

6.2.4 No settlements or individual properties in the study area would experience substantial adverse effects.

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6.2.5 Moderate adverse effects would potentially be experienced at Lower Farm Cottage and some properties along Yapton Lane to the west of the site.

6.2.6 Lower Farm Cottage and some properties along Yapton Lane would potentially experience oblique, partial, close range views of part of the operational solar farm over intervening vegetation. Their proximity to the site increases the magnitude of the impact, however, potential views would be filtered by existing boundary vegetation. Views would be similar to those shown in viewpoints 2 and 3 (Figures 8 and 9).

6.2.7 Lower Farm Cottage and properties along Yapton Lane would benefit from the proposed mitigation in the form of hedgerow and hedgerow tree planting to the boundaries of the development. Over time, as proposed planting matures the site would be further screened and visual effects would reduce.

6.2.8 Slight to moderate adverse effects would be experienced at Flint Cottages situated immediately to the west of Lower Farm Cottage and Walberton Farm Cottage to the north of the site off Yapton Lane. Effects at Flint Cottage would be similar to those identified at Lower Farm Cottage but Flint Cottages would benefit from the visual screening provided the built form and vegetation associated with Lower Farm Cottage.

6.2.9 Walberton Farm Cottage would experience open, middle distance views of part of the operational solar farm within the northern field. Views would be similar to that shown in Viewpoint 1 (Figure 7).

6.2.10 Flint Cottages and Walberton Farm would benefit from proposed planting to the northern boundary of the development. As planting matures views of the operational solar farm would reduce.

6.2.11 Slight adverse effects would be experienced at St Mary's Church to the north east of the development as the operational development would be partially visible in the middle distance over intervening landform and vegetation. View would be similar to viewpoint 4 (Figure 10).

6.2.12 Slight adverse to imperceptible effects would potentially be experienced at Binsted, Arundel, Slindon and Oakley Cottages. At Binsted, Arundel and Slindon it is likely that the operational development would be screened from view by intervening vegetation but there is the potential for glimpsed views from higher elevations within these settlements. Views would be similar to viewpoints 7 and 8 (Figure 13 and 14).

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Transport and rights of way network

6.2.13 These include roads, railways, long distance footpaths and public rights of way (Figure 5) within the 5km study area and within the ZTV, the effects are assessed in detail in Appendix 5. Effects are intermittent as the roads and paths cross areas of potential inter-visibility. Each individual public right of way and minor road and lane within 5km have not been considered separately as there are so many within the 5km radius study area, however those in the vicinity of the site are assessed in Appendix 5.

6.2.14 The proposed solar farm would create no substantial effects within the transport and rights of way network.

6.2.15 Moderate adverse effects would be experienced by road users travelling along Yapton Lane/B2132 to the west of the proposed solar farm (refer to viewpoints 1, 2 and 3 – Figures 7, 8 and 9). From the majority of the route, road uses would not experience views of the proposed solar farm due to screening by intervening vegetation provided primarily by roadside hedgerows. However, as the road passes the site to the west there would be intermittent, close range views through gaps in the intervening hedgerow. These views would reduce as planting proposed at the site matures.

6.2.16 Slight to moderate adverse effects would be experienced by users of PROW 350 (footpath) that connects Binsted Lane and Yapton Lane to the north of the site (refer to viewpoint 4 - Figure 10). Moving along the path at higher elevation to the eastern and western extents there would be intermittent views of the operational solar farm in the middle distance. Visibility of the operational solar farm would reduce as the footpath drops into the concealed valley that runs adjacent to the site to the east. Views from this footpath would be greatly reduced by the proposed planting along the northern boundary of the proposed development.

6.2.17 Slight to moderate adverse effects would potentially be experienced by users of PROW 341 (footpath) and PROW 338/Old Scotland Lane (Bridleway) as the Public Rights of way move along the boundary of the South Downs National Park at the foot of the south facing down land slope that climbs into the designation. From these routes there would potentially be partial views of the operational solar farm in the middle distance over intervening vegetation.

6.2.18 Along Binsted Lane to the north east of site and PROW 355 (footpath), that runs south from Binsted Lane at Oakely Cottages to meet Ford Lane and passes the site to the east, users would experience slight adverse effects (refer to viewpoint 5 – Figure 11). These effects would be due to intermittent views filtered by intervening vegetation of

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the operational solar farm as users move along the routes. These views would be reduced as proposed planting to the sites eastern boundary matures.

6.2.19 Slight adverse to imperceptible effects would potentially be experienced by users of public bridleway PROW 415 within the South Downs National Park to the north of the site (refer to viewpoint 8 – Figure 14). There would potentially be glimpsed views over intervening vegetation of the operational development but at a distance of over 3km, and in the context of the existing adjacent industrial land uses, the development would most likely be imperceptible.

Potential visual effects after decommissioning

6.2.20 The removal of the solar panels and associated structures and infrastructural facilities at decommissioning would result in some temporary impacts but once dismantled the site would be restored and the long term visual impacts caused by their presence would disappear. The effects of the visible elements of the development are reversible.

7 MITIGATION

7.1.1 Mitigation measures are required in order to avoid, reduce, remedy or compensate for any adverse effects of the development. The principle of mitigation commences with the design of the development and is an iterative process, in that measures are taken, wherever possible, to adjust the design to minimise adverse effects. This has already been undertaken by locating the solar farm on land that benefits from little inter-visibility with the surrounding landscape and sits adjacent to existing industrial landscape features.

7.1.2 In addition, mitigation has also been incorporating into the design of the solar farm; temporary compounds and substation are located to the north east corner of the site where they will be adjacent farm buildings and vegetation. All planting within the site and on the site boundaries would be retained and managed to grow to its full mature height. This would increase the screening of the site and reduce the magnitude of the effects on views.

7.1.3 Additional hedgerow planting is proposed to the open development edges and in gaps where the existing hedgerow has degraded, as shown on Figure 17. New hedgerow tree planting is also proposed to the boundaries of the site that would provide visual screening of the proposed developed and help to restore the quality of the landscape and ecology of the site. Over time growth of the existing and proposed hedgerows

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and hedgerow trees in line with the management plan prepared as part of the ecological assessment will help to mitigate any visual impact.

8 RESIDUAL EFFECTS

8.1.1 Because the mitigation for the potential landscape and visual impacts of the development has been incorporated into the scheme, the appraisal of effects has addressed residual effects and therefore there are no further effects to consider.

9 CUMULATIVE EFFECTS

9.1 Introduction

9.1.1 Approximately 2.6km to the south east of the site is the site of an approved field scale solar development at Binsham Farm (planning ref Y/87/13/). The approved scheme is just over twice the size of the proposed development on Land east of Yapton Lane at 36ha and will have a potential generating capacity of approximately 14.5MW.

9.2 Methodology

9.2.1 Chapter 7 of GLVIA 3 provides guidance on the assessment of cumulative effects. It defines cumulative effects as: "the additional changes caused by a proposed development in conjunction with other similar developments or as the combined effect of a set of developments, taken together."

9.2.2 The assessment has focussed on the operational stage of the developments, as these are more likely to be prominent than any short-term, temporary effects associated with the construction or decommissioning phases.

Cumulative landscape effects

9.2.3 Cumulative landscape effects are likely to include effects:

- On the fabric of the landscape as a result of removal of changes in individual elements or features of the landscape and/or the introduction of new elements or features;
- On the aesthetic aspects of the landscape – for example its scale, sense of enclosure, diversity, pattern and colour, and/or on its perceptual or experiential attributes, such as a sense of naturalness, remoteness or tranquillity;
- On the overall character of the landscape as a result of changes in the landscape fabric and/or in aesthetic or perceptual aspects, leading to the modification of key characteristics and possible creation of new landscape character if the changes are substantial enough.

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9.2.4 The cumulative landscape effects would be likely to be greatest in areas that are of greater susceptibility to change and of higher value, all other factors being equal. Other factors that would determine the level of the effects include the size or scale of the cumulative effects, the extent of the geographical area influenced by the cumulative effects, and the duration of the cumulative effects. Areas where there are concentrations of people and where the landscape character is an accepted backdrop to settlements could also be particularly sensitive to cumulative landscape effects.

9.2.5 Prominent adverse cumulative landscape effects are more likely to occur where schemes would be close to the development and inter-visible resulting in solar farms becoming a key characteristic of the landscape, changing the landscape character.

Cumulative visual effects

9.2.6 The study of cumulative visual effects concerns the effects on views and visual amenity enjoyed by people, which may result either from adding the effects of the development to other developments in the area or their combined effect. This study has considered the potential for the effects given in Table 10 (taken from GLVIA 3, Table 7.1):

Table 10
Types of cumulative visual effects

Generic	Specific	Characteristics
Combined		
Occurs where the observer is able to see two or more developments from one viewpoint	In combination	Where two or more developments are or would be within the observer's arc of vision at the same time without moving her/his head
	In succession	Where the observer has to turn her/his head to see the various developments – actual and visualised
Sequential		
Occurs when the observer has to move to another viewpoint to see the same or different developments. Sequential effects may be assessed for travel along regularly used routes such as major roads or popular paths	Frequently sequential	Where the features appear regularly and with short time lapses between instances depending on speed of travel and distance between the viewpoints
	Occasionally sequential	Where longer time lapses between appearances would occur because the observer is moving very slowly and/or there are larger distances between the viewpoints

9.2.7 Cumulative visual effects are considered in terms of:

- the susceptibility of the visual receptors that have been assessed to changes in

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views and visual amenity;

- the value attached to the views they experience;
- the size or scale of the cumulative visual effects identified;
- the geographical extent of the cumulative visual effects identified;
- the duration of the cumulative visual effects, including the timescales relating to both the project being assessed and the other projects being considered, and the extent to which the cumulative effects may be considered reversible.

9.2.8 In addition to above, for sequential visibility, potential cumulative visual effects are considered in terms of:

- the frequency and duration of the sequential effects (frequent or occasional, glimpsed or prolonged);
- the scale and nature of the views (near or distant views, oblique or direct views, filtered or open views);
- the speed of travel and distance and time between views; and
- the contexts of the sequential views.

9.2.9 An effect may exist but may not be prominent. Prominent adverse cumulative visual effects are anticipated to be more likely in areas where more than one solar farm is visible at the same time and in the same field of view as the development, and/or particularly where the solar farms are within close distances to the viewer and there are open views.

9.3 Assessment of cumulative landscape effects during operation

9.3.1 Inter-visibility of the addition of the Land east of Yapton Lane scheme to that at Binsham Farm would be greatly limited by intervening landform, vegetation and built form. Therefore is it not considered that this would result in cumulative effects on the landscape character of the study area.

9.4 Assessment of cumulative visual effects during operation

9.4.1 The two sites are physically and visually separated by intervening landform, vegetation and built form. There are no locations where the two sites would be visible simultaneously therefore there would be no instances of combined visual effects occurring from the introduction of the Land east of Yapton Lane site to that at Binsham Farm.

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9.4.2 Additionally due to a lack of shared transport routes and rights of way between the sites the introduction of the proposed solar farm at Land east of Yapton Lane would be highly unlikely to create sequential visual effects.

10 SUMMARY AND CONCLUSIONS

10.1 Landscape effects

10.1.1 The effects on the landscape character of the Binsted Upper Coastal Plain and Withy Rife character areas resulting from the introduction of the proposed solar farm on Land at Lower Farm, Yapton Lane would not exceed slight to moderate adverse. Effects upon the character of the wider landscape within the study area would be imperceptible due to a lack of inter-visibility with the surrounding landscape.

10.1.2 The predicted landscape effects would primarily be due to the introduction of an additional (energy generation) land use to the existing (agricultural) land use, and a change in the landscape pattern local to the site. The magnitude of this change would be medium to low due to the existing local land use of commercial nurseries adjacent to the proposed development. The built form associated with commercial nurseries, namely glasshouses and sheds, is similar in terms of perception from the surrounding landscape as the built form associated with a solar farm. The introduction of the solar farm would therefore not be entirely incongruous with the baseline.

10.1.3 The magnitude of impact upon the character of South Downs National Park would be negligible do to a lack of inter-visibility with the site, therefore effects would be imperceptible.

10.1.4 The proposed planting scheme (Figure 17) would restore degraded boundary hedgerows to the site and introduce new hedgerow trees which would provide a beneficial landscape effect.

10.2 Visual effects

10.2.1 The Zone of Theoretical Visibility (Figure 1) shows a wide visibility splay. In reality, however, due to the predominantly flat and low lying coastal landscape of the site, screening provided by surrounding land cover is considerable and therefore visibility of the site is generally limited to within 2km.

10.2.2 Within 2km of the site no substantial or moderate to substantial adverse visual effects would occur as a result of the introduction of a solar farm on Land east of Yapton Lane.

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10.2.3 There are several individual properties within the immediate setting of the site that would have views of the operational solar farm. Lower Farm Cottage, Flint Cottages, Walberton Farm Cottage and some properties along Yapton Lane would have partial, near to middle distance views of the development. However due to existing vegetative screening none of these views would give rise to visual effects exceeding moderate adverse.

10.2.4 The proposed solar farm would create no substantial or moderate to substantial adverse effects within the transport and rights of way network.

10.2.5 Moderate or slight to moderate adverse effects would be experienced by road users travelling along Yapton Lane/B2132 and by users of PROW 350, PROW 341 and PROW 338/Old Scotland Lane.

10.2.6 Along all of the identified routes, visual effects would be intermittent due to intervening vegetative or landform screening and would reduce as proposed planting matures (Figure 17). In the predominantly flat landscape of the study area the screening effects of the restoration of boundary hedgerows to the site and the introduction of hedgerow trees would be substantial.

10.3 Residual effects

10.3.1 The solar farm has a design life of 30-35 years, at the end of which it would be dismantled and the site restored to its current condition. The effects of the scheme are reversible. Therefore, there would be no residual adverse landscape or visual effects. The beneficial effects of planting associated with the proposed solar farm would remain.

10.4 Overall conclusions

10.4.1 This assessment concludes that the proposed development would only result in very limited slight to moderate and moderate adverse landscape and visual effects. Identified visual effects would reduce in the longer term as the proposed hedgerow and hedgerow tree planting matures and the hedgerows on the site boundaries are managed to grow taller and would provide a long term beneficial landscape effect.

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APPENDIX 1
Methodology for producing ZTV

APPENDIX 1 METHODOLOGY FOR PRODUCING ZTVS

1 INTRODUCTION

A Zone of Theoretical Visibility diagram (ZTV) illustrates the area of the landscape from which a viewer can theoretically see the object in question. This is often also referred to as the visual envelope and the map as the visual envelope map (VEM), or zone of visual influence diagram (ZVI). This is a desk-based technique and provides a framework and structure for the subsequent fieldwork.

This kind of information can be manually derived from cross sections but the process is laborious. Computer software is usually now used to provide this information.

2 METHOD

The Ground Model

The first step in the production of a ZTV is to obtain a computer representation of the ground surface in the vicinity of the proposed development, referred to as a Digital Terrain Model (DTM).

The data used for this project was obtained from the Ordnance Survey. The DTM for ZTV analysis was derived from OS terrain 50 mapped on grid post spacing of 50m.

The Model of the Development

To produce a ZTV, the XYZ data of the viewpoint or object under analysis is required. XYZ data is the easting and northing point plus the height or Z co-ordinate of the subject above the ground level.

The XYZ object data for the development is then entered into the ZTV program that uses the DTM to compute theoretical inter-visibility.

Presentation of results

The ZTV is indicative of general areas from which the whole or part of the solar farm could be theoretically visible, within the limits of accuracy of the data used. The ZTV analysis does not indicate significance of impact, merely the presence of a theoretical line of sight.

The results of the analysis are mapped by colour shading to indicate if any part of the site is theoretically visible. This information is then overlaid onto the OS map of the proposed site and surrounding area so that the information may be properly

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understood and analysed. Viewpoints used in the text have also been included on the ZTV drawing.

The ZTV analysis uses a test height from the normal eye level of a standing person (at approximately 1.8m above ground level). Theoretical visibility from cars and upper storeys of buildings may vary somewhat. This method produces a bare ground ZTV that relies solely upon topography and does not take into account the screening provided by trees or buildings. Neither does it address the effects of distance. This means that the results provide a worst case scenario of the solar farm visibility.

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APPENDIX 2

Methodology for producing photomontages

APPENDIX 2 METHODOLOGY FOR PRODUCING PHOTOMONTAGES

1 USE OF PHOTOMONTAGE

Photomontages are intended to provide an indication of how a photograph from a chosen viewpoint would look if the development were already operational, or restored. Therefore they must be constructed accurately in order that they can be demonstrated to be a fair representation.

2 PHOTOGRAPHY

Photographs were taken using a 30mm equivalent focal length lens using a Nikon D3100 digital SLR camera. Photographs were taken in portrait format to reduce any possible lens distortion.

The camera was mounted on a stable, levelled tripod with a professional panoramic head attached. This positions the focal centre of the camera lens above the pivot of the tripod and allows the photographs to be stitched together accurately using software. The position of the viewpoint location was recorded using a survey grade GPS receiver.

Individual photographs were spliced together using 'Panorama Tools' to create a panorama. The final panoramas were then saved as high-resolution full-colour digital images.

3 PHOTOMONTAGE

Detailed correctly dimensioned 3D computer models of the proposed development were generated. These were placed onto the ground model to scale, and in the correct position.

For each photomontage viewpoint, the detailed model was rendered to a digital image using a lighting model in the computer software consistent with conditions within the photograph of that viewpoint. The rendered image used the same viewpoint, bearing and field of view parameters as the previously matched wireframes.

The photomontages were produced by overlaying the rendered image on the photograph, using known control points (minimum 3 per viewpoint) which were included within the photograph and surveyed at the same time as the survey of the viewpoint location. Final adjustments were then made to brightness and contrast of

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the rendered image to match it to the photograph. Any rendered items that should be obscured by foreground detail within the photograph were then digitally removed using Adobe Photoshop. The resulting photomontage was then saved as a high-resolution full-colour digital image.

4 INTERPRETATION

The correct viewing distance for the photomontages produced is the distance from eye to paper which will result in the apparent size of the development or restored site in the image matching the apparent size of actual objects which would be seen by an observer standing at the viewpoint. This is calculated according to the size of the final printed image and its field of view. The photomontages produced are cylindrical projection panoramas with a horizontal field of view of 90 degrees. They are printed 510mm wide so the correct view distance in all cases is therefore 31.5cm. As the panoramas are cylindrical projection the view distance is the same across the extent of the panorama. To correctly view the full panorama the image should therefore be curved around the eye.

Where photomontages have been produced, there is an inevitable element of judgement inherent in the representation of the changes shown in the finished image. The process relies upon the judgement of an experienced professional.

Because a photomontage is based upon an actual photograph, it represents the lighting conditions at the time that it was taken. This obviously changes with weather, time of day and season. Therefore the perceptibility of the changes represented and the visual character of the development or restored site could vary from the image created. However, if carefully constructed, the photomontages can provide a very good guide of the position in the view and likely appearance.

Like a photograph, a photomontage is, at best, a representation of a view and, as such, cannot reproduce the actual experience of being at the location depicted.

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APPENDIX 3

Potential visual impacts on the main settlements within the 5km study area and ZTV

APPENDIX 3 POTENTIAL VISUAL IMPACTS ON THE MAIN SETTLEMENTS WITHIN THE 5KM STUDY AREA AND ZTV

Appendix 3 Potential visual impacts on the settlements with the Study Area and within the ZTV					
Settlement	**Distance (km) and Direction from the site**		**Sensitivity of visual receptors**	**Magnitude**	**Overall effect**
Yapton	0.8	S/SSW	High (residential receptors)	Negligible The site would be entirely screened by intervening vegetation.	Imperceptible
Binsted	0.9	N	High (residential receptors)	Low to negligible There would potentially be some very limited views down the valley through intervening vegetation from some properties within the settlement. From most of the settlement the site would be screened by intervening landform and vegetation.	Slight adverse to imperceptible
Walberton	1	NNW	High (residential receptors)	Negligible The site would be entirely screened by intervening vegetation.	Imperceptible
Ford	1.5	ESE	High (residential receptors)	Negligible The site would be entirely screened by intervening vegetation and landform.	Imperceptible
Barnham	1.6	W	High (residential receptors)	Negligible The site would be entirely screened by intervening vegetation and built form.	Imperceptible

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Appendix 3 Potential visual impacts on the settlements with the Study Area and within the ZTV					
Settlement	**Distance (km) and Direction from the site**		**Sensitivity of visual receptors**	**Magnitude**	**Overall effect**
Tortington	1.7	E	High (residential receptors)	Negligible The site would be entirely screened by intervening vegetation and built form.	Imperceptible
Arundel	2.8	NE	High (residential receptors)	Low to negligible There would potentially be some partial long distance views from some limited elevated areas to the west of the settlement. From the majority of the settlement the site would be entirely screened from view by intervening vegetation, landform and built form.	Slight adverse to imperceptible
Slindon	2.9	NNW	High (residential receptors)	Low to negligible There would potentially be some partial long distance views from some limited elevated areas to the north of the settlement. From the majority of the settlement the site would be entirely screened from view by intervening vegetation, landform and built form.	Slight adverse to imperceptible
Fontwell	3.1	NW	High (residential receptors)	Negligible The site would be entirely screened by intervening vegetation and built form.	Imperceptible
Eastergate	3.3	WNW	High (residential receptors)	Negligible The site would be entirely screened by intervening vegetation and built form.	Imperceptible

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Appendix 3 **Potential visual impacts on the settlements with the Study Area and within the ZTV**					
Settlement	**Distance (km) and Direction from the site**		**Sensitivity of visual receptors**	**Magnitude**	**Overall effect**
Westergate	3.9	WNW	High (residential receptors)	Negligible The site would be entirely screened by intervening vegetation and built form.	Imperceptible
Coastal settlements including Bognor Regis, Middleton-on Sea and Littlehampton	3.9	SW/S/SE	High (residential receptors)	Negligible The site would be entirely screened by intervening vegetation, landform and built form.	Imperceptible

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APPENDIX 4

Potential visual effects on individual properties within 2km of the site and the ZTV

APPENDIX 4 POTENTIAL VISUAL EFFECTS ON INDIVIDUAL PROPERTIES WITHIN 2KM OF THE SITE AND WITHIN THE ZTV

Appendix 4 Potential Visibility from Properties/Groups of Buildings within 2km of the site and the ZTV						
Properties	**Distance (m) and direction from the site**		**Orientation of property**	**Sensitivity of visual receptors**	**Magnitude**	**Overall effect**
Sunnymead Farm	230	SE	E/W	High (residential receptors)	Negligible The site is entirely screened by intervening vegetation.	Imperceptible
Lower Farm Cottage	140	WNW	N/S/E/W	High (residential receptors)	Medium to low There would potentially be oblique, partial close range views of some of the northern section of the operational solar farm. These views would reduce as proposed planting matures.	Moderate adverse
Flint Cottage	170	WNW	N/S	High (residential receptors)	Low There would potentially be oblique, partial close range views of some of the northern section of the operational solar farm filtered by the built form and vegetation of Lower Farm Cottage. These views would reduce as proposed planting matures.	Moderate to slight adverse
Properties along Yapton Lane to the west of the site	Closest property 210	W	ALL	High (residential receptors)	Medium to Low Properties are mostly screened by vegetation along Yapton Lane. There would potentially be some middle distance views of the operational solar farm from first floor windows or filtered views through intervening vegetation.	Moderate adverse
Marsh Farm	410	E	NE/SW	High (residential receptors)	Negligible The site is entirely screened from view by intervening vegetation	Imperceptible

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Appendix 4 Potential Visibility from Properties/Groups of Buildings within 2km of the site and the ZTV						
Properties	**Distance (m) and direction from the site**		**Orientation of property**	**Sensitivity of visual receptors**	**Magnitude**	**Overall effect**
Oakley Cottages	540	NE	ALL	High (residential receptors)	Low There would potentially be some middle distance views of the operational solar farm from first floor windows or filtered views through intervening vegetation from properties to the west of Binsted Lane.	Slight adverse to imperceptible
Walberton Farm	580	N	ALL	High (residential receptors)	Medium There would be open middle distance views of the operational solar farm over intervening vegetation. Views would reduce as proposed planting matures.	Moderate to slight adverse
St Mary's Church	1000	N	E/W	High (residential receptors)	Low The site would be partially visible in the middle distance over landform and intervening vegetation.	Slight adverse

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APPENDIX 5

Potential visual effects on the transport and rights of way network within the 5km study area and ZTV

APPENDIX 5 POTENTIAL VISUAL EFFECTS ON THE TRANSPORT AND RIGHTS OF WAY NETWORK WITHIN THE 5KM OF THE SITE AND WITHIN THE ZTV

Appendix 5 Potential visual impacts on transportation and rights of way network				
Transport Route	**Summary of impact**	**Sensitivity of visual receptors**	**Magnitude**	**Overall effect**
Roads				
Yapton Lane/B2132 (approximately 0.2km west of the site at the closest point)	This single carriageway road runs between Middleton-on-Sea to the south-south-west of the site and Slindon to the north-north-west of the site. Although the road sites nearly entirely within the ZTV, in reality views from the road to the site are infrequent. For much of the route, as it passes the site to the west, the operational solar farm would be screened by intervening vegetation. Where hedgerows are missing or degraded there would be intermittent middle distance to close range views of the operational solar farm. These views would reduce as proposed planting matures.	Medium (road users travelling through rural and residential areas)	Medium due to intervening screening along much of the road	Moderate adverse
Binsted Lane (approximately 0.5km north east of the site at the closest point)	This minor road runs through Binsted to the north east of the site. Views of the operational solar farm would be very infrequent and limited to glimpsed filtered views through intervening vegetation.	Medium (road users travelling through rural and residential areas)	Low Due to the intervening screening	Slight adverse
Ford Lane (approximately 0.6km to the south of the site at the closest point)	This minor road connects Yapton to the south west of the site and Ford to south east of the site. Views of the operational solar farm would be screened by the intervening woodland belt along the railway line to the south of the development.	Medium (road users travelling through rural and residential areas)	Negligible Due to the intervening screening	Imperceptible

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Appendix 5 Potential visual impacts on transportation and rights of way network				
Transport Route	**Summary of impact**	**Sensitivity of visual receptors**	**Magnitude**	**Overall effect**
Ford Road (approximately 1.6km east of the site at the closest point)	This minor road connects Arundel to the north east of the site and Ford to the south east of the site. The operational solar farm would be entirely screened by intervening vegetation, land form and built form.	Medium (road users travelling through rural and residential areas)	Negligible Due to the intervening screening	Imperceptible
Arundel Road/A27 (approximately 2km north of the site at the closest point)	This dual carriageway road runs between Eastbourne to the east-south-east of the site and Portsmouth to the west of the site. It serves as the primary transport corridor through the area and as such is a busy and fast moving road. The operational solar farm would be screened from the route by intervening vegetation, land form and built form.	Medium to low (road users travelling fast through rural areas)	Negligible Due to the intervening screening	Imperceptible
London Road/A284 (approximately 3.5km to the north east of the site at the closest point)	This single carriageway road runs from Littlehampton to the south east of the site north and climbs into the South Downs National Park where it meets the A29. From higher elevation within the National Park there would potentially be a glimpsed view of the operational solar farm as road users head south on the A284. However, at this distance the development would be imperceptible.	High (road users travelling through the South Downs National Park)	Negligible Due to the intervening screening and distance from the development	Imperceptible
National Cycle Routes and Long Distance Footpaths				
National Cycle Route 2 (approximately 1.3km south of the site at the closest point)	National Cycle Route 2 passes through Yapton approximately 1.3km south of the site at the closest point. The operational solar farm would be entirely screened from the route by intervening vegetation, built form and landform.	High (long distance footpath and national cycle route users)	Negligible Due to the intervening screening	Imperceptible
Public Rights of Way				
Footpath PROW 328 (approximately 0.6km north west of the site at its closest point)	PROW 328 footpath south of Walberton and east of Yapton Lane. The operational solar farm would be entirely screened by intervening vegetation, land form and built form.	High (public footpath users)	Negligible Due to the intervening screening	Imperceptible

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Appendix 5 Potential visual impacts on transportation and rights of way network				
Transport Route	**Summary of impact**	**Sensitivity of visual receptors**	**Magnitude**	**Overall effect**
Footpath PROW 350 (approximately 0.9km north of the site at the closest point)	PROW 350 footpath connecting Binsted Lane and Yapton Lane at Blackmsith's Corner. There would be intermittent middle distance views of the operational solar farm over intervening vegetation from more elevated areas of the footpath to the east and west. Views reduce as the path moves down the valley slopes. Viewpoint 4 (Figure 10) is representative of the view from higher points along the footpath.	High (public footpath users)	Medium to low Due to intermittent open middle distance views of some of the operational solar farm	Moderate adverse
Footpath PROW 355 (approximately 0.2km east of the site at the closest point)	PROW 355 footpath runs between Oakley Cottages and Ford Lane to the east of the site. There would be some intermittent views of the operational solar farm along the route. These views would be filtered by intervening vegetation. Viewpoint 5 (Figure 11) and photomontage from Viewpoint 5 (Figure 16) are representative of views from the footpath.	High (public footpath users)	Low to Negligible Due to intermittent views filtered by intervening vegetation.	Slight adverse
Footpath PROW 341 (approximately 0.8km north east of the site at the closest point)	PROW 341 footpath follows the National Park boundary to the east of Binsted. There would potentially be partial middle distance views over intervening vegetation from elevated areas of the footpath to the north as it enters Binsted Wood.	High (public bridleway users)	Low Due to potential partial middle distance views of some of the operational solar farm over intervening vegetation.	Moderate to slight adverse
Bridleway PROW 338 (Old Scotland Lane) (approximately 1.7km north of the site at the closest point)	PROW 338 (Old Scotland Lane) bridleway runs between Pedler's Croft and Binsted Lane to the north of the site. There would potentially be partial middle distance views over intervening vegetation where the path leaves the woodland at Pedler's Croft.	High (public footpath users)	Low Due to potential partial middle distance views of some of the operational solar farm over intervening vegetation.	Moderate to slight adverse

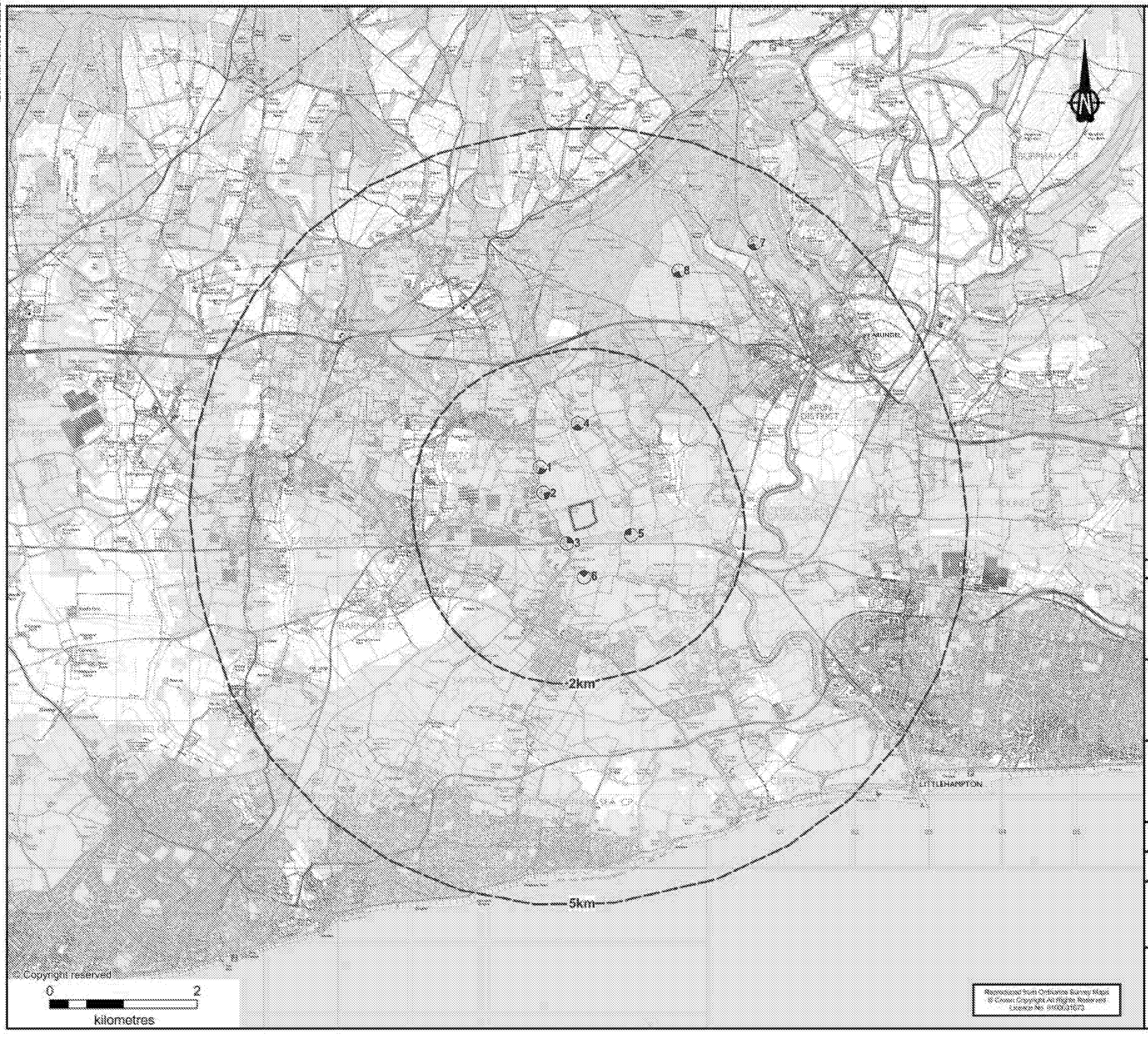
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Appendix 5 Potential visual impacts on transportation and rights of way network				
Transport Route	**Summary of impact**	**Sensitivity of visual receptors**	**Magnitude**	**Overall effect**
Bridleway PROW 415 (approximately 3km to the north of the site at the closest point)	PROW 415 crosses through an open and elevated area of pastoral land amidst the wooded down lands of the South Downs National Park. There would potentially be glimpsed views over intervening vegetation of the operational development but at this distance, and in the context of the existing adjacent industrial land uses, the development would most likely be imperceptible.	High (public footpath and public bridleway users moving through the National Park)	Low to negligible Due potential glimpsed views of the operational development	Slight adverse to imperceptible
Footpath PROW 3067 (Long Lane) (approximately 2.7km to the north east of the site at the closest point)	PROW connects the Arundel Road/A27 and PROW 415. The footpath climbs a south facing slope within the South Downs National Park. The operational solar farm would be screened by intervening vegetation.	High (public footpath and public bridleway users moving through the National Park)	Negligible Due to screening by intervening vegetation	Imperceptible

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FIGURES

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Key

- Site Boundary
- 2km and 5km Distance Buffer
- Area where solar farm is theoretically visible
- Viewpoint Locations

Notes:

The ZTV is based on a multi point grid within the Site boundary. Each point is 2.4m above ground level.

ZTV is based on theoretical visibility using bare ground topography without any screening.

OS Terrain 50 DTM data was used to create the model from which the ZTV was produced.

The ZTV has been clipped to 1km offshore.

The ZTV takes into account an eye height of 2m.

The ZTV was created using MapInfo Software which takes into account the curvature of the Earth.

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REV	DETAILS	DATE	DRAWN	CHKD	APPR
A	Updated Site Boundary	12/14	CWa	LG	HK

CLIENT

LIGHTSOURCE

PROJECT

Solar Farm on Land at Lower Farm, Yapton Lane, Walberton

DRAWING TITLE

Figure 1
Zone of Theoretical Visibility

DRG No	SCALE	DATE
PE10439/Figure 1	1:50 000 @ A3	November 2014
CWa	CHECKED BY SKM	APPROVED BY HK

- STONE (NR TRENT) (HEAD OFFICE) TEL: 0845 111 7777
- NEWCASTLE UPON TYNE TEL: 0191 233 0855
- WEST BROMWICH TEL: 0121 580 0909
- LONDON TEL: 020 7260 2672
- CARDIFF TEL: 0292 072 9191
- LEIGH TEL: 01942 260101
- SHEFFIELD TEL: 0114 245 6244
- EDINBURGH TEL: 0131 555 3311
- LIVERPOOL TEL: 01925 401 900

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Key

- Site Boundary
- 2km and 5km Distance Buffer
- Site of Special Scientific Interest
- SSSI Impact Risk Zones affecting Solar Developments
- South Downs National Park
- South Downs Environmentally Sensitive Area
- Local Nature Reserve
- Ancient Woodland

Notes

SSSI Impact Risk Zones (SSSI IRZ) have been shown for recorded consultation types relative to wind and Solar developments described as having a "footprint > 0.5ha" in accordance with "Natural England's Impact Risk Zones for Sites of Special Scientific Interest User Guidance (27th May 2014)"

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REV					
A	Updated Site Boundary	12/14	CWa	LS	HK

CLIENT: LIGHTSOURCE

PROJECT: Solar Farm on Land at Lower Farm, Yapton Lane, Walberton

DRAWING TITLE: Figure 2 Landscape Desingations

DRAWING NO.	SCALE	DATE
PE10439/Figure 2	1:50 000 @ A3	November 2014

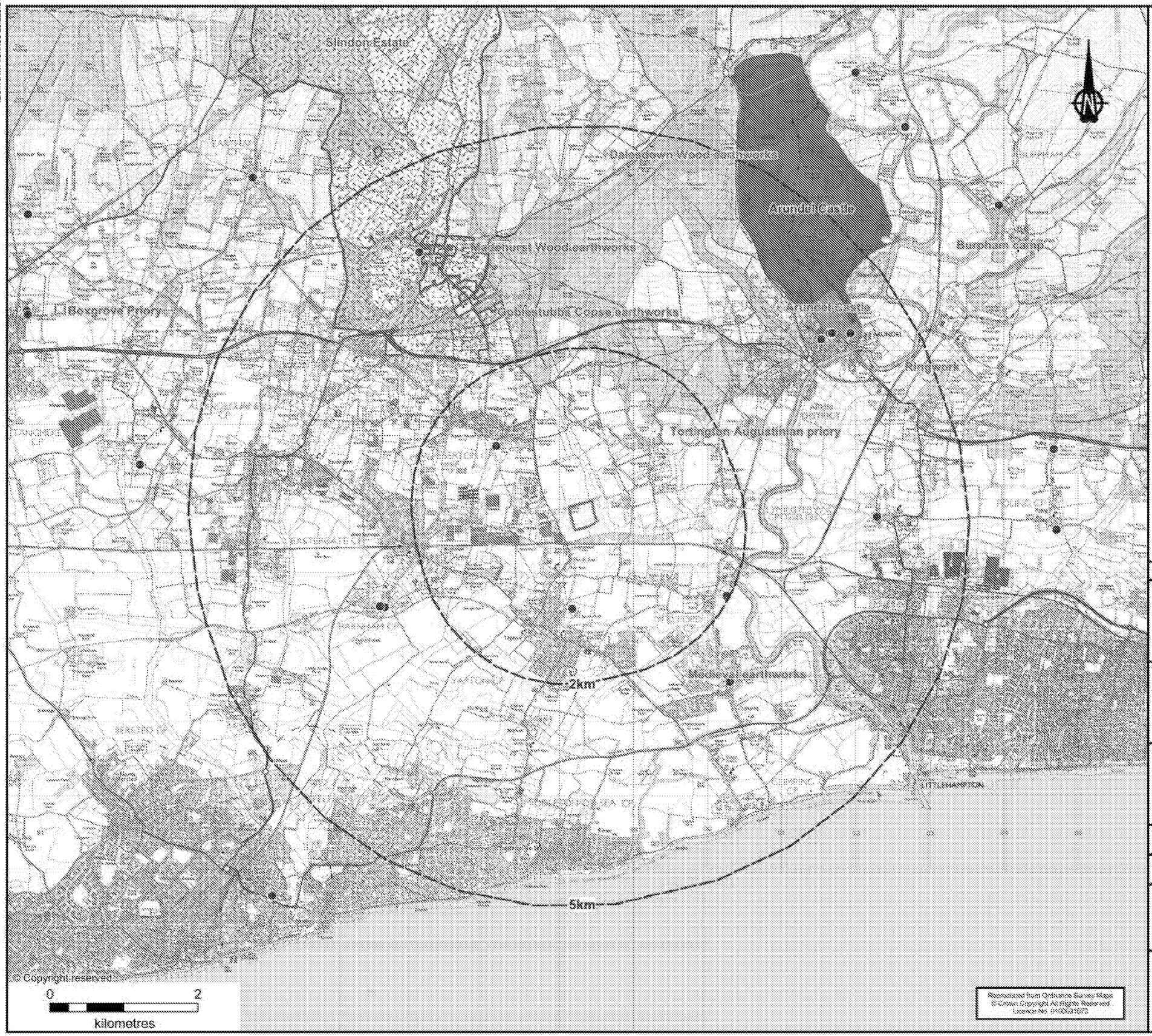
DRAWN BY	CHECKED BY	APPROVED BY
HM	SKM	HK

- STOKE-ON-TRENT (HEAD OFFICE) TEL: 0845 111 7777
- NEWCASTLE UPON TYNE TEL: 0191 233 0855
- WEST BROMWICH TEL: 0121 580 0909
- LONDON TEL: 020 7280 2872
- CARDIFF TEL: 02920 072 9191
- LEIGH TEL: 01942 260101
- SHEFFIELD TEL: 0114 245 6244
- EDINBURGH TEL: 0131 555 3311
- LIVERPOOL TEL: 01925 401 900

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Key

- Site Boundary
- 2km and 5km Distance Buffer
- National Register of Parks and Gardens
- National Trust Ownership Areas
- English Heritage Sites
- Scheduled Monuments
- Grade I Listed Buildings of Exceptional Interest

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REV	DETAILS	DATE	DRAWN	CHKD	APPD
A	Updated Site Boundary	12/14	CWa	LG	HK

CLIENT: LIGHTSOURCE

PROJECT: Solar Farm on Land at Lower Farm, Yapton Lane, Walberton

DRAWING TITLE: Figure 3 Sensitive Receptors

DRAWING NO.	SCALE	DATE
PE10439/Figure 3	1:50 000 @ A3	November 2014

DRAWN BY	CHECKED BY	APPROVED BY
HM	SKM	HK

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WEST BROMWICH	TEL: 0121 580 0909	SHEFFIELD	TEL: 0114 245 6244
LONDON	TEL: 020 7287 2872	EDINBURGH	TEL: 0131 555 3311
		LIVERPOOL	TEL: 08451 551 900

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ARUN DISTRICT COUNCIL WA/34/15/PL

South Downs

South Coast Plain

SD1

SD2

SD3

SD4

SC7

SC8

SC9

SC10

SC11

SC12

SC1

U

2km

5km

0 2

kilometres

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Key

- Site Boundary
- 2km and 5km Distance Buffer
- National Character Areas

West Sussex Landscape Character

- SC1 South Coast Shoreline
- SC7 Halnaker Upper Coastal Plain
- SC8 Fontwell Upper Coastal Plain
- SC9 Chichester to Yapton Coastal Plain
- SC10 Lower Arun Valley
- SC11 Little Hampton & Worthing Fringes
- SC12 Angmering Upper Coastal Plain
- SD1 Western Downs
- SD2 Angmering Upper Coastal Plain
- SD3 Central Downs
- SD4 Angmering Park
- U Built Up Areas

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West Sussex Local Landscape Character Areas obtained from West Sussex County Council Landscape Character Areas 2007.

REV	DETAILS	DATE	DRAWN	CHKD	APPD
A	Updated Site Boundary	12/14	CWa	LG	HK

CLIENT: LIGHTSOURCE

PROJECT: Solar Farm on Land at Lower Farm, Yapton Lane, Walberton

DRAWING TITLE: Figure 4
Landscape Character Areas

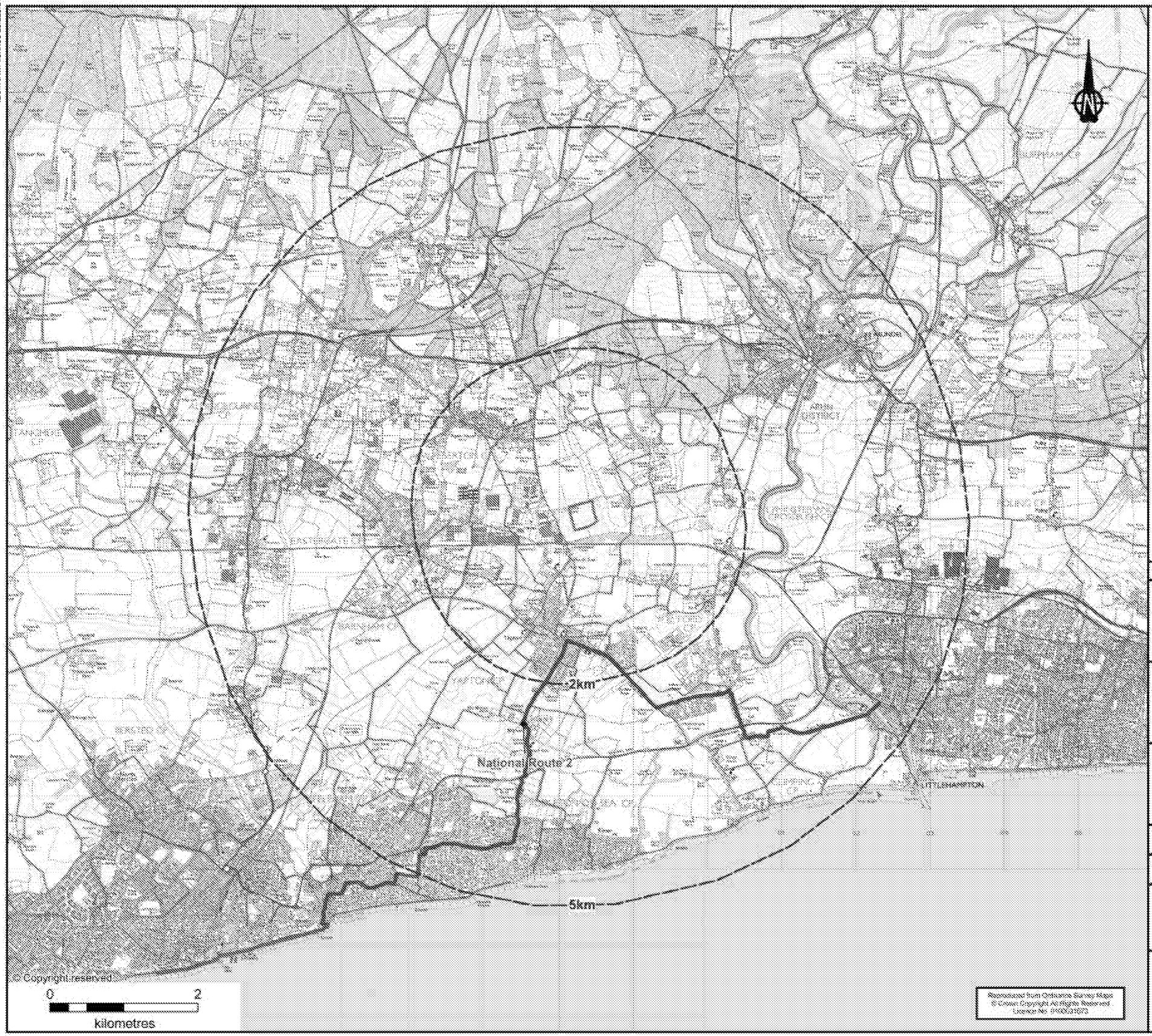
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Key

- Site Boundary
- 2km and 5km Distance Buffer

National Cycle Network

- Traffic Free
- On Road
- CRoW Open Country & Registered Common Land
- Public Rights of Way

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A	Updated Site Boundary	12/14	CWa	LG	HK

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PROJECT: Solar Farm on Land at Lower Farm, Yapton Lane, Walberton

DRAWING TITLE: Figure 5
Access Network

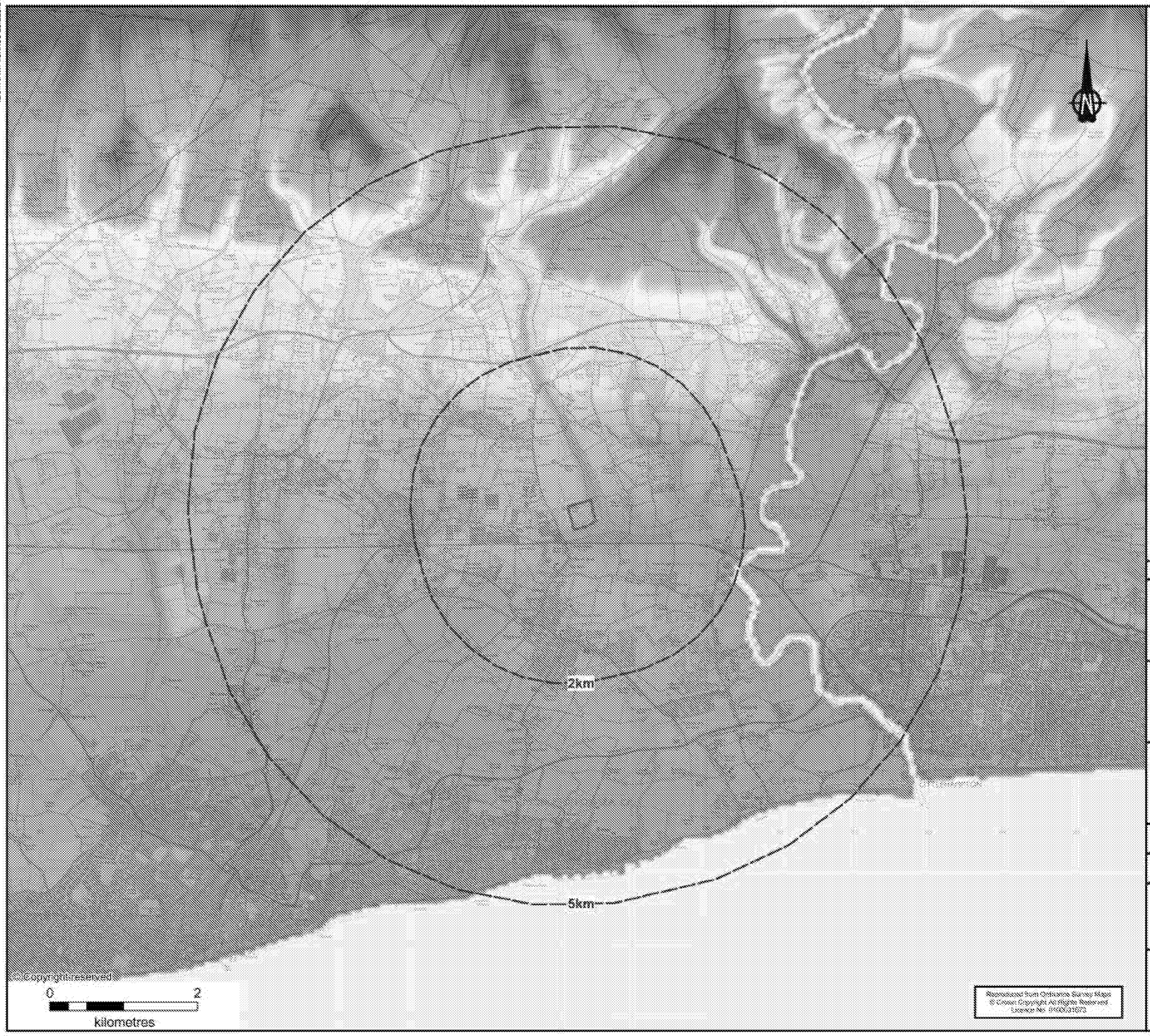
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SHEFFIELD TEL: 0114 245 6244
EDINBURGH TEL: 0131 555 3311
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Key

Site Boundary

2km and 5km Distance Buffer

mAOD
250m
200m
150m
100m
50m
0m

DTM data derived from OS terrain 50 ASCII tiles.

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REV	DETAILS	DATE	DRAWN	CHKD	APPD
A	Updated Site Boundary	12/14	CWa	LG	HK

CLIENT

LIGHTSOURCE

PROJECT

Solar Farm on Land at Lower Farm, Yapton Lane, Walberton

DRAWING TITLE

Figure 6
Topography

DRAWING NO.	SCALE	DATE
PE10439/Figure 6	1:50 000 @ A3	November 2014

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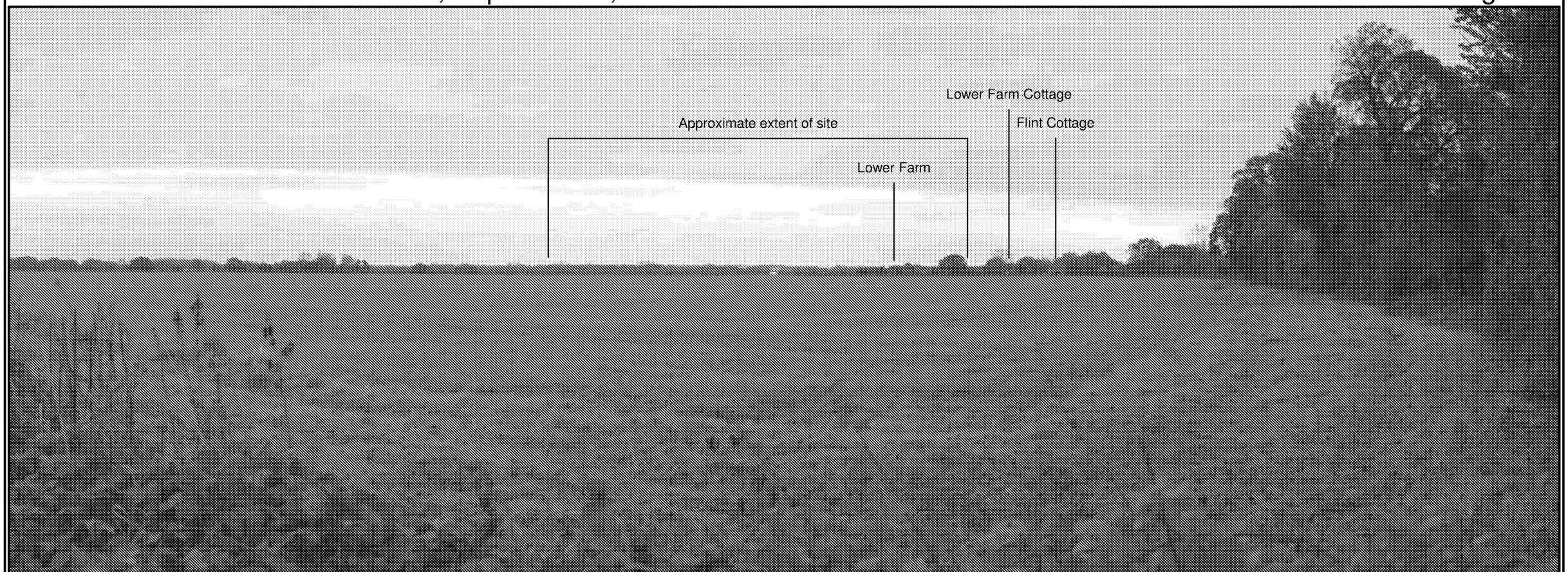
STONE (NR TRENT HEAD OFFICE)	TEL: 0845 111 7777	CARDIFF	TEL: 02920 072 9191
NEWCASTLE UPON TYNE	TEL: 0191 232 0943	LEIGH	TEL: 01942 260101
WEST BROMWICH	TEL: 0121 580 0909	SHEFFIELD	TEL: 0114 245 6244
LONDON	TEL: 020 7287 2872	BOURNEMOUTH	TEL: 0161 355 5317
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Solar Farm on Land at Lower Farm, Yapton Lane, Walberton

Figure 7

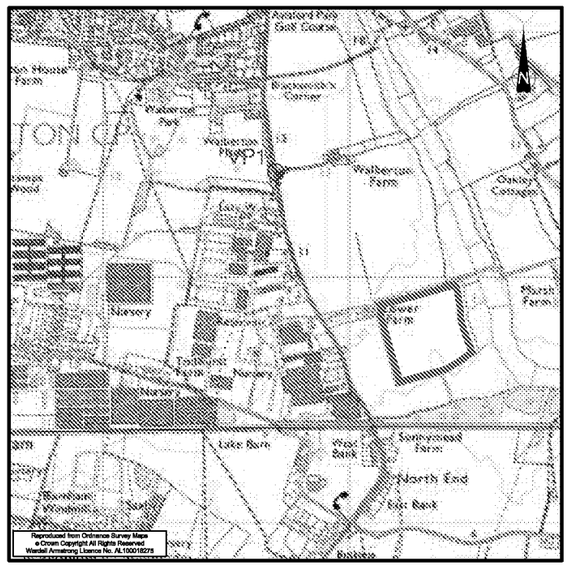


LANDSCAPE AND VISUAL ASSESSMENT — VIEWPOINT 1 — Viewpoint captured October 2014

VIEWPOINT LOCATION (RECEPTOR)	DISTANCE FROM APPLICATION BOUNDARY	DESCRIPTION OF VIEW	VIEW DURING CONSTRUCTION	VIEW OF OPERATIONAL SITE	MITIGATION MEASURES	STATUS OF EFFECTS	VISUAL IMPACT ASSESSMENT
View from access to Walberton Farm just of Yapton Lane (B2132) Location of Viewpoint: SU 497717, 105443 Receptors: Representative of view from Walberton Farm and users of Yapton Lane at this point along route.	0.7km APPROX. HEIGHT AOD 14m	View south east towards site across agricultural fields currently in arable use. Site is partially visible in middle distance behind built form of Lower Farm.	There would be open, partial views of the installation of the solar panels, transformers/ inverters, access track and deer fence in the middle distance.	There would be open, partial views of the operational solar farm. Visibility of the development would reduce as proposed planting to the northern boundary of the development matures.	Hedgerow and hedgerow tree planting is proposed to the northern boundary of the site (Figure 17). As planting scheme matures it would provide visual screening and enclosure to the development.	Construction effects are temporary and reversible. The effects of the completed development are also reversible as the solar farm is designed to last for approximately 30-35 years, at the end of which the site would be restored and the long term visual impacts would cease. The benefits of proposed planting would remain.	Impercepible / Slight / Moderate / Substantial / Severe During Construction (Short Term) Adverse/Negative Impact Beneficial/Positive Impact Developed Site (Long Term) Adverse/Negative Impact Beneficial/Positive Impact

SENSITIVITY OF VISUAL RECEPTORS	MAGNITUDE OF EFFECTS
High - Residential receptors Medium - Road users	Short term: Medium as there would be open, partial views of some construction activities. Long term: Medium to low as there would be open, partial views of some of the operational development that would be filtered by proposed vegetation. Over time visibility of the operational development would reduce as proposed planting matures.

Location of Viewpoint 1 @ 1:25,000

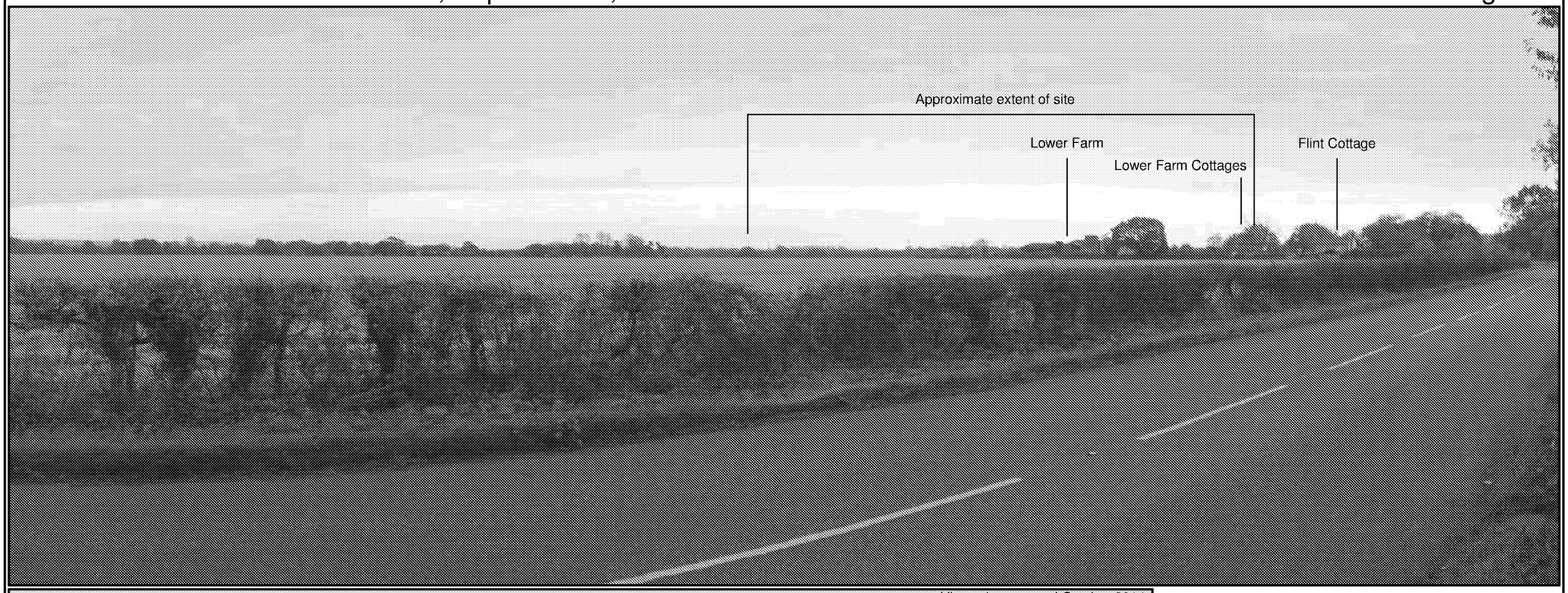


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Solar Farm on Land at Lower Farm, Yapton Lane, Walberton

Figure 8

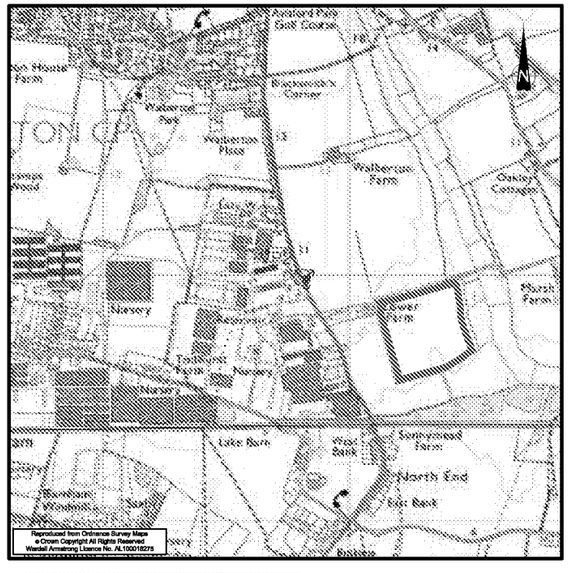


LANDSCAPE AND VISUAL ASSESSMENT — VIEWPOINT 2 — Viewpoint captured October 2014

VIEWPOINT LOCATION (RECEPTOR)	DISTANCE FROM APPLICATION BOUNDARY	DESCRIPTION OF VIEW	VIEW DURING CONSTRUCTION	VIEW OF OPERATIONAL SITE	MITIGATION MEASURES	STATUS OF EFFECTS	VISUAL IMPACT ASSESSMENT
View from Yapton Lane (B1232) to the north west of the site. Location of viewpoint SU 497770 , 105098 Receptors: Representative view of users of Yapton Lane at this point along the route.	0.3km APPROX. HEIGHT AOD 11m	View south east towards site across agricultural fields currently in arable use. Site is partially visible in near distance behind built form of Lower Farm.	There would be oblique, partial views of the installation of the solar panels, transformers/ inverters, access track and deer fence in the near distance.	There would be oblique, partial views of the operational solar farm. Visibility of the development would reduce as proposed planting to the northern boundary of the development matures.	Hedgerow and hedgerow tree planting is proposed to the northern boundary of the site (Figure 17). As planting scheme matures it would provide visual screening and enclosure to the development.	Construction effects are temporary and reversible. The effects of the completed development are also reversible as the solar farm is designed to last for approximately 30-35 years, at the end of which the site would be restored and the long term visual impacts would cease. The benefits of proposed planting would remain.	Imperceptible / Slight / Moderate / Substantial / Severe During Construction (Short Term) Adverse/Negative Impact Beneficial/Positive Impact Developed Site (Long Term) Adverse/Negative Impact Beneficial/Positive Impact

SENSITIVITY OF VISUAL RECEPTORS	MAGNITUDE OF EFFECTS
Medium - Road users	Short term: Medium as there would be oblique, partial, near distance views of some construction activities. Long term: Medium to low as there would be oblique, partial, near distance views of some of the operational development that would be filtered by proposed vegetation. Over time visibility of the operational development would reduce as proposed planting matures.

Location of Viewpoint 2 @ 1:25,000

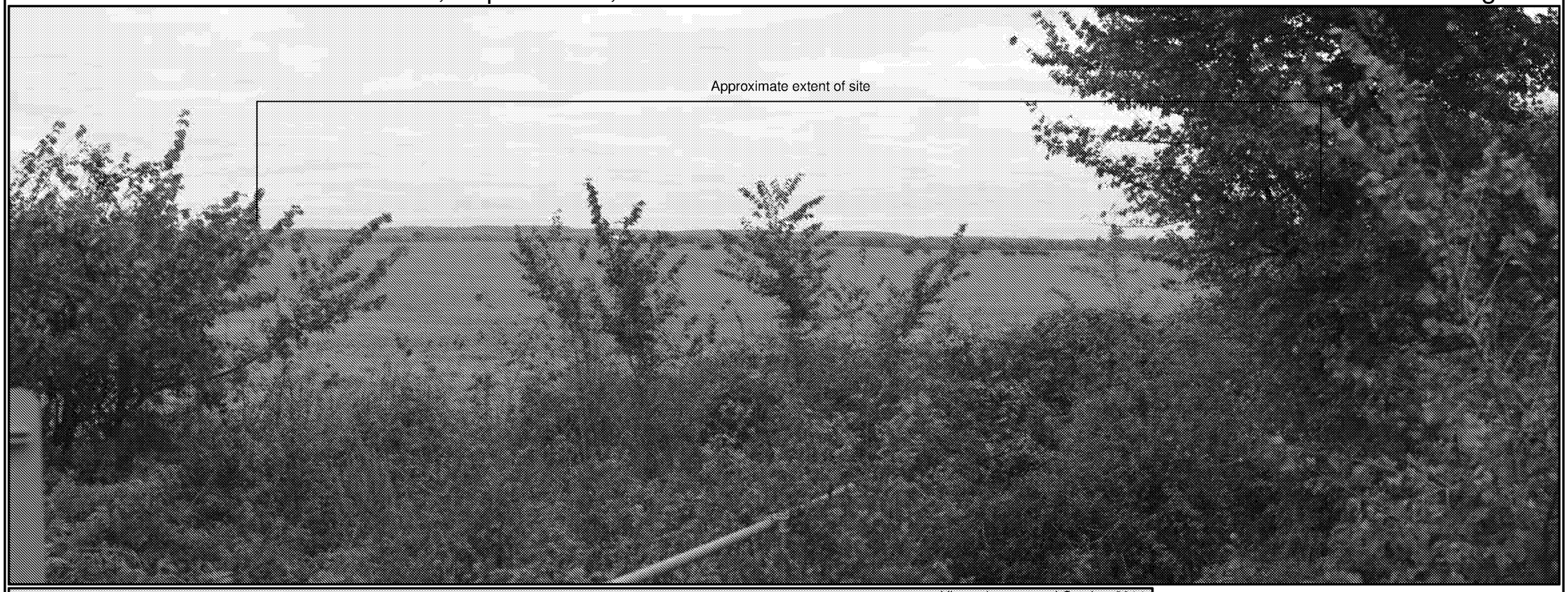


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Solar Farm on Land at Lower Farm, Yapton Lane, Walberton

Figure 9



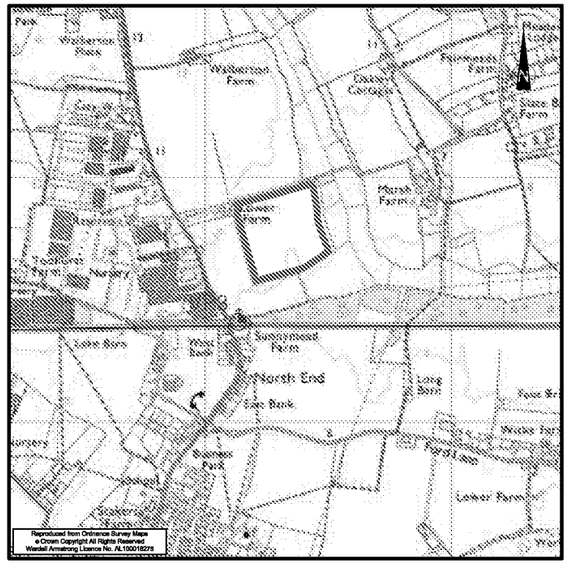
LANDSCAPE AND VISUAL ASSESSMENT — VIEWPOINT 3

Viewpoint captured October 2014

VIEWPOINT LOCATION (RECEPTOR)	DISTANCE FROM APPLICATION BOUNDARY	DESCRIPTION OF VIEW	VIEW DURING CONSTRUCTION	VIEW OF OPERATIONAL SITE	MITIGATION MEASURES	STATUS OF EFFECTS	VISUAL IMPACT ASSESSMENT
View from Yapton Lane (B1232) adjacent to railway crossing. Location of viewpoint: SU 498097 , 104424 Receptors: Representative view of users of Yapton Lane at this point along the route.	0.2km APPROX. HEIGHT AOD 4m	View north east over agricultural fields towards the site, which is partially visible over the intervening vegetation and between the low gappy hedgerows of the site boundary.	There would be open, partial views of the installation of the solar panels, transformers/ inverters, access track and deer fence in the near distance.	There would be open, partial views of the operational solar farm over intervening vegetation. Visibility of the development would reduce considerably as proposed planting to the western and southern boundaries of the development matures.	Hedgerow and hedgerow tree planting is proposed to the western and southern boundaries of the site (Figure 17). As the planting scheme matures it would provide visual screening and enclosure to the development.	Construction effects are temporary and reversible. The effects of the completed development are also reversible as the solar farm is designed to last for approximately 30-35 years, at the end of which the site would be restored and the long term visual impacts would cease. The benefits of proposed planting would remain.	Imperceptible / Slight / Moderate / Substantial / Severe During Construction (Short Term) Adverse/Negative Impact Beneficial/Positive Impact Developed Site (Long Term) Adverse/Negative Impact Beneficial/Positive Impact

SENSITIVITY OF VISUAL RECEPTORS	MAGNITUDE OF EFFECTS
Medium: Road users	Short term: Medium as there would be oblique, partial, near distance views of some construction activities. Long term: Medium to low as there would be oblique, partial, near distance views of some of the operational development that would be filtered by proposed vegetation. Over time visibility of the operational development would reduce as proposed planting matures.

Location of Viewpoint 3 @ 1:25,000

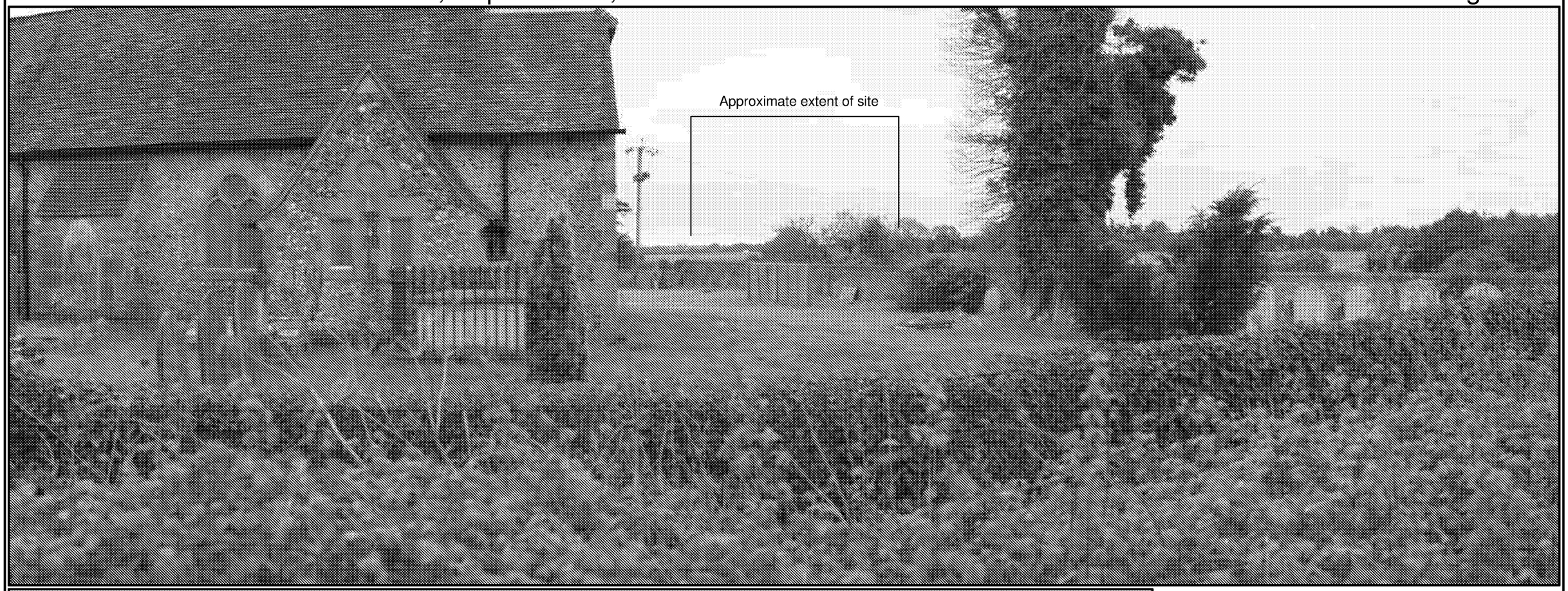


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Solar Farm on Land at Lower Farm, Yapton Lane, Walberton

Figure 10

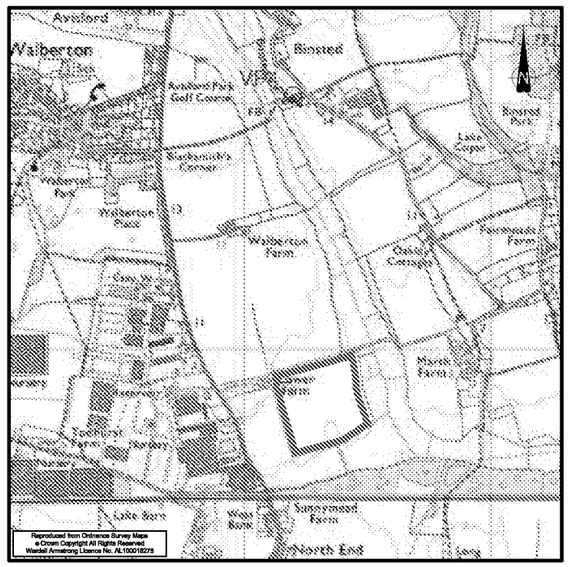


LANDSCAPE AND VISUAL ASSESSMENT — VIEWPOINT 4 — Viewpoint captured October 2014

VIEWPOINT LOCATION (RECEPTOR)	DISTANCE FROM APPLICATION BOUNDARY	DESCRIPTION OF VIEW	VIEW DURING CONSTRUCTION	VIEW OF OPERATIONAL SITE	MITIGATION MEASURES	STATUS OF EFFECTS	VISUAL IMPACT ASSESSMENT
View from eastern end of public footpath PROW 350 Location of viewpoint: SU 498221 ,106044 Receptors: View representative of users of public footpath at this point along the route. At lower elevations as footpath moves west site would be screened by intervening vegetation.	1km APPROX. HEIGHT AOD 12m	View south over churchyard of St Mary's church towards site. Site is partially visible against backdrop of woodland in middle distance.	There would be partial distant views of the installation of the solar panels, transformers/ inverters, access track and deer fence.	There would be partial, distant views of the operational solar farm over intervening vegetation. Visibility of the development would reduce as proposed planting to the northern boundary of the development matures.	Hedgerow and hedgerow tree planting is proposed to the northern boundary of the site (Figure 17). As the planting scheme matures it would provide visual screening and enclosure to the development.	Construction effects are temporary and reversible. The effects of the completed development are also reversible as the solar farm is designed to last for approximately 30-35 years, at the end of which the site would be restored and the long term visual impacts would cease. The benefits of proposed planting would remain.	Imperceptible / Slight / Moderate / Substantial / Severe During Construction (Short Term) Adverse/Negative Impact: Moderate Beneficial/Positive Impact Developed Site (Long Term) Adverse/Negative Impact: Slight Beneficial/Positive Impact

SENSITIVITY OF VISUAL RECEPTORS	MAGNITUDE OF EFFECTS
High: Footpath users	Short term: Medium as there would be partial, middle distance views of some construction activities. Long term: Low as there would be partial, middle distance views of some of the operational development that would be filtered by proposed vegetation. Over time visibility of the operational development would reduce as proposed planting matures.

Location of Viewpoint 4 @ 1:25,000

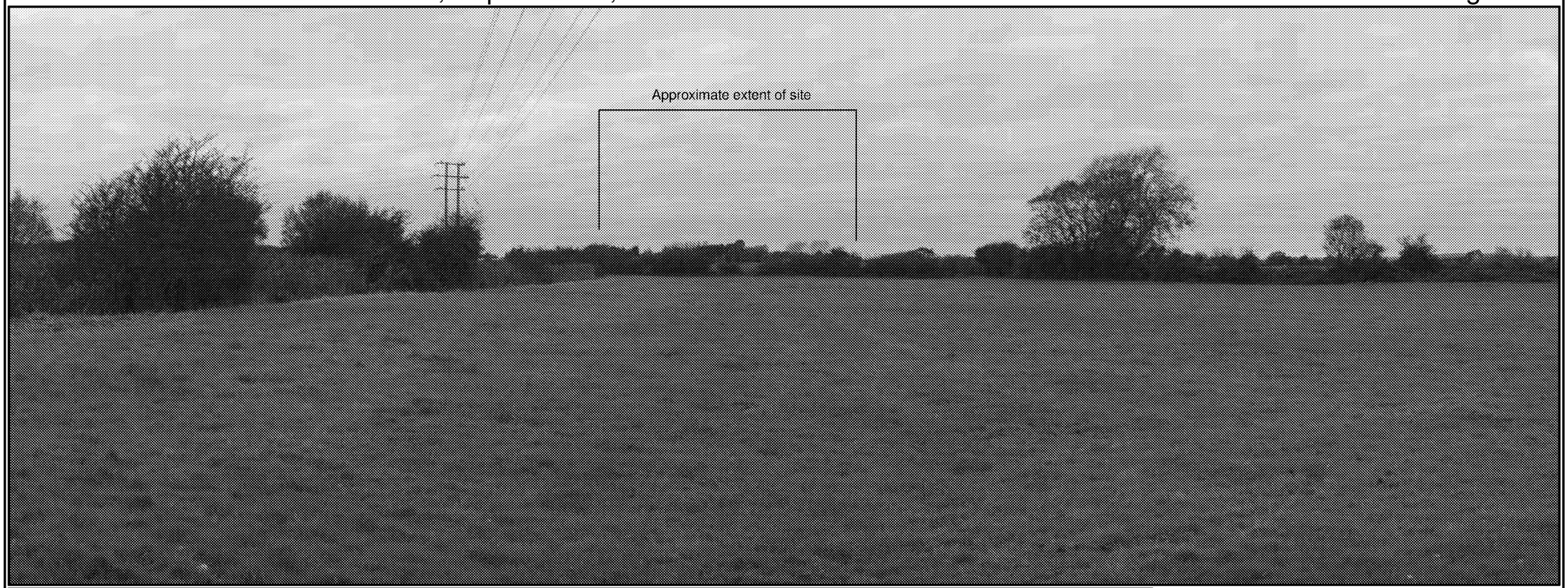


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Solar Farm on Land at Lower Farm, Yapton Lane, Walberton

Figure 11

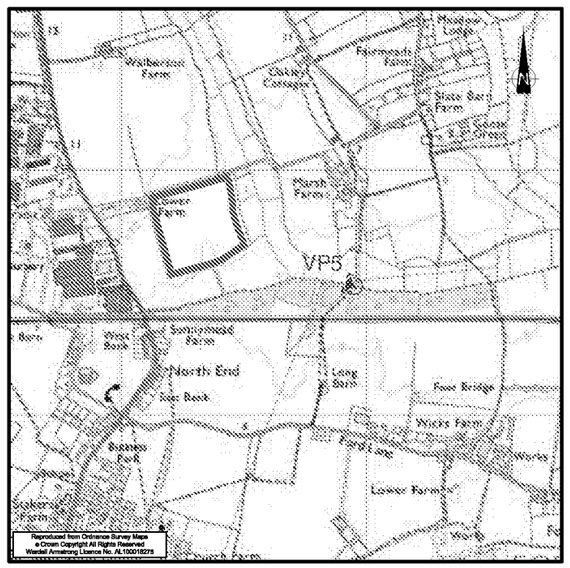


LANDSCAPE AND VISUAL ASSESSMENT — VIEWPOINT 5 — Viewpoint captured October 2014

VIEWPOINT LOCATION (RECEPTOR)	DISTANCE FROM APPLICATION BOUNDARY	DESCRIPTION OF VIEW	VIEW DURING CONSTRUCTION	VIEW OF OPERATIONAL SITE	MITIGATION MEASURES	STATUS OF EFFECTS	VISUAL IMPACT ASSESSMENT
View from public footpath PROW 355 near footbridge over wetland area Location of viewpoint: SU 498958 ,104551 Receptors: Representative view of footpath users at this point along route. Similar views exist elsewhere along route but are more significantly screened by intervening vegetation	0.5km APPROX. HEIGHT AOD 1m	View over agricultural land and hidden drainage valley adjacent to sites eastern boundary. Site is partially visible in near distance. View is filtered by existing intervening vegetation.	There would be partial, middle distance views of the installation of the solar panels, transformers/ inverters, access track and deer fence. Views would be filtered by existing intervening vegetation.	There would be partial, middle distance views of the operational solar farm filtered by existing intervening vegetation. Visibility of the development would further reduce as proposed planting to the southern boundary of the development matures.	Hedgerow and hedgerow tree planting is proposed to the southern boundary of the site (Figure 17). As the planting scheme matures it would provide visual screening and enclosure to the development.	Construction effects are temporary and reversible. The effects of the completed development are also reversible as the solar farm is designed to last for approximately 30-35 years, at the end of which the site would be restored and the long term visual impacts would cease. The benefits of proposed planting would remain.	Impercepible / Slight / Moderate / Substantial / Severe During Construction (Short Term) Adverse/Negative Impact: Moderate Beneficial/Positive Impact Developed Site (Long Term) Adverse/Negative Impact: Slight Beneficial/Positive Impact

SENSITIVITY OF VISUAL RECEPTORS	MAGNITUDE OF EFFECTS
High: Footpath users	Short term: Medium to low as there would be partial, middle distance views of some construction activities filtered by intervening vegetation. Long term: Low as there would be partial, middle distance views of some of the operational development that would be filtered by existing and proposed vegetation. Over time visibility of the operational development would further reduce as proposed planting matures.

Location of Viewpoint 5 @ 1:25,000

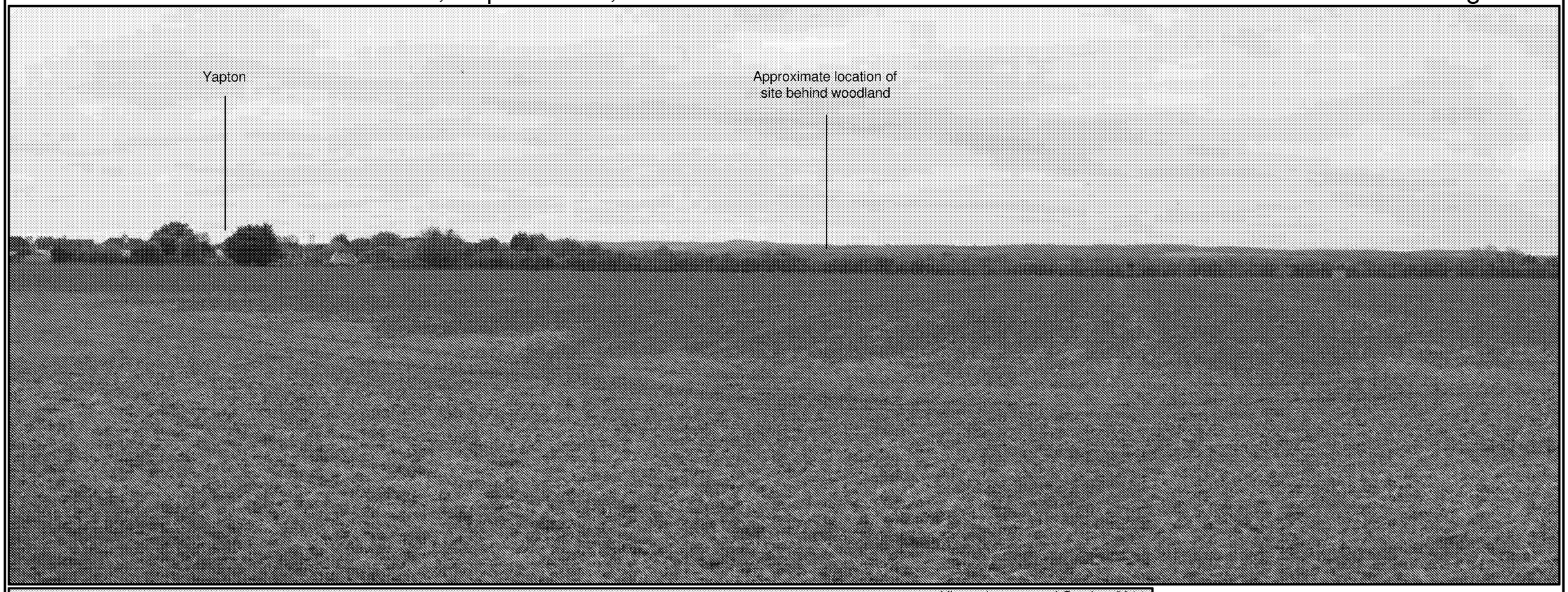


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Solar Farm on Land at Lower Farm, Yapton Lane, Walberton

Figure 12



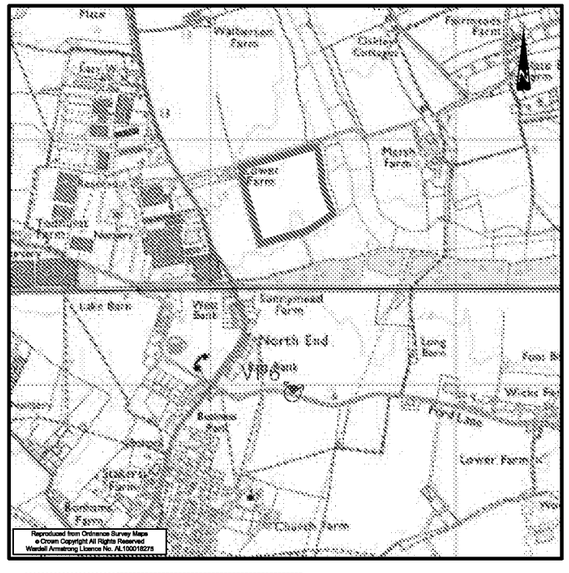
LANDSCAPE AND VISUAL ASSESSMENT — VIEWPOINT 6

Viewpoint captured October 2014

VIEWPOINT LOCATION (RECEPTOR)	DISTANCE FROM APPLICATION BOUNDARY	DESCRIPTION OF VIEW	VIEW DURING CONSTRUCTION	VIEW OF OPERATIONAL SITE	MITIGATION MEASURES	STATUS OF EFFECTS	VISUAL IMPACT ASSESSMENT
View north from Ford Lane near public footpath PROW 356. Location of viewpoint: SU 498328 ,103975 Receptors: View representative of road users moving along Ford Lane and users of PROW 356 at the location where footpath crosses Ford Lane.	0.6km APPROX. HEIGHT AOD 1m	View north over agricultural field towards site. Properties on the outskirts of Yapton are visible to the left of the view. The site is entirely screened by intervening vegetation.	Imperceptible	Imperceptible	None required	Construction effects are temporary and reversible. The effects of the completed development are also reversible as the solar farm is designed to last for approximately 30-35 years, at the end of which the site would be restored and the long term visual impacts would cease. The benefits of proposed planting would remain.	Imperceptible / Slight / Moderate / Substantial / Severe During Construction (Short Term) Adverse/Negative Impact: Slight Beneficial/Positive Impact: — Developed Site (Long Term) Adverse/Negative Impact: Slight Beneficial/Positive Impact: —

SENSITIVITY OF VISUAL RECEPTORS	MAGNITUDE OF EFFECTS
High: Footpath users Medium: Road users	Short term: Negligible Long term: Negligible

Location of Viewpoint 6 @ 1:25,000



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Solar Farm on Land at Lower Farm, Yapton Lane, Walberton

Figure 13

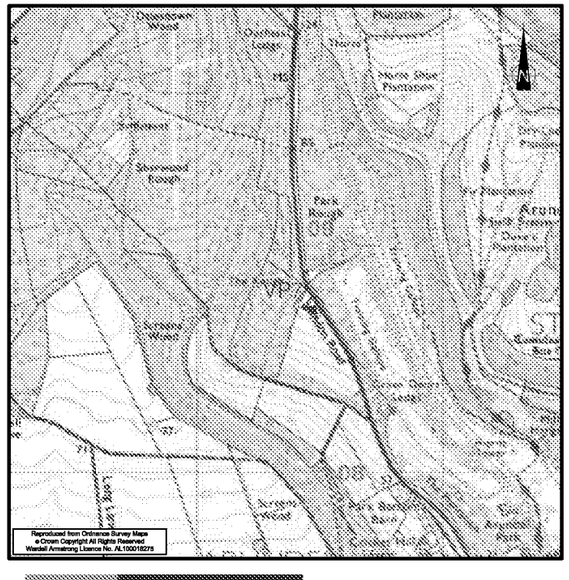


LANDSCAPE AND VISUAL ASSESSMENT — VIEWPOINT 7 — Viewpoint captured October 2014

VIEWPOINT LOCATION (RECEPTOR)	DISTANCE FROM APPLICATION BOUNDARY	DESCRIPTION OF VIEW	VIEW DURING CONSTRUCTION	VIEW OF OPERATIONAL SITE	MITIGATION MEASURES	STATUS OF EFFECTS	VISUAL IMPACT ASSESSMENT
View south west from London Road (A284) Location of viewpoint: SU 500610 ,108488 Receptors: View is similar to views of road users travel south at this point on London Road. Elsewhere along the route the site is entirely screened by intervening vegetation.	4.2km APPROX. HEIGHT AOD 74m	View south towards site over wooded lowlands of South Downs National Park. The site is screened by intervening vegetation.	Imperceptible	Imperceptible	None required	Construction effects are temporary and reversible. The effects of the completed development are also reversible as the solar farm is designed to last for approximately 30-35 years, at the end of which the site would be restored and the long term visual impacts would cease. The benefits of proposed planting would remain.	Imperceptible / Slight / Moderate / Substantial / Severe During Construction (Short Term) Adverse/Negative Impact: Slight Beneficial/Positive Impact: — Developed Site (Long Term) Adverse/Negative Impact: Slight Beneficial/Positive Impact: —

SENSITIVITY OF VISUAL RECEPTORS	MAGNITUDE OF EFFECTS
High: Road users moving through National Park	Short term: Negligible Long term: Negligible

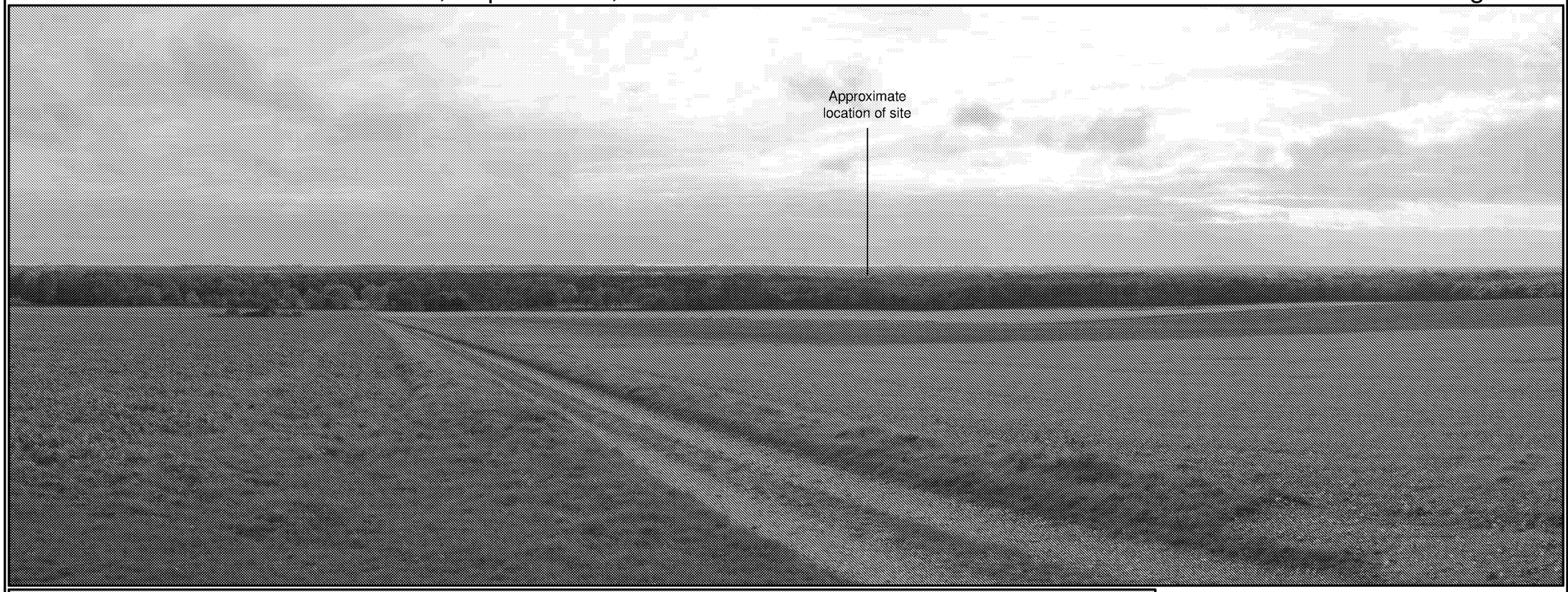
Location of Viewpoint 7 @ 1:25,000



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Solar Farm on Land at Lower Farm, Yapton Lane, Walberton — Figure 14

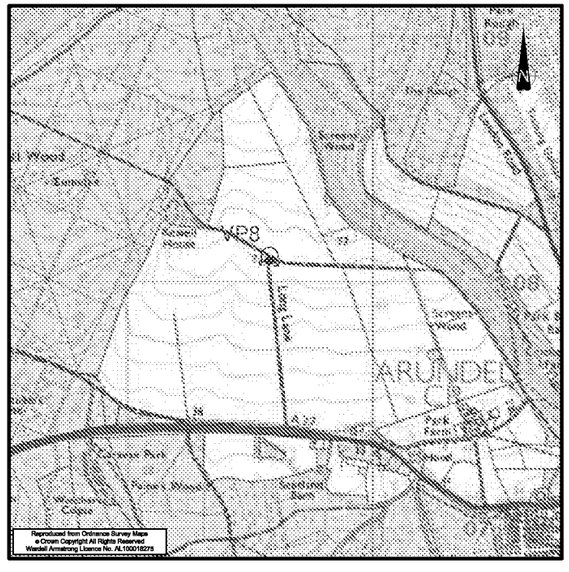


LANDSCAPE AND VISUAL ASSESSMENT — VIEWPOINT 8 — Viewpoint captured October 2014

VIEWPOINT LOCATION (RECEPTOR)	DISTANCE FROM APPLICATION BOUNDARY	DESCRIPTION OF VIEW	VIEW DURING CONSTRUCTION	VIEW OF OPERATIONAL SITE	MITIGATION MEASURES	STATUS OF EFFECTS	VISUAL IMPACT ASSESSMENT
View south from junction of public footpath PROW 3067 and public bridleway PROW 415 Location of viewpoint: SU 499582 ,108113 Receptors: Representative view of public bridle way users moving across open area of route between area of wooded downland and public footpath users at this point along route	3.3km APPROX. HEIGHT AOD 65m	View south over pasture land to wooded downland of National Park. Site is screened by intervening vegetation.	Negligible	Negligible	None required	Construction effects are temporary and reversible. The effects of the completed development are also reversible as the solar farm is designed to last for approximately 30-35 years, at the end of which the site would be restored and the long term visual impacts would cease. The benefits of proposed planting would remain.	Imperceptible / Slight / Moderate / Substantial / Severe During Construction (Short Term) Adverse/Negative Impact: Slight Beneficial/Positive Impact: — Developed Site (Long Term) Adverse/Negative Impact: Slight Beneficial/Positive Impact: —

SENSITIVITY OF VISUAL RECEPTORS	MAGNITUDE OF EFFECTS
High: Users of Public right of Way moving through National Park.	Short term: Imperceptible Long term: Imperceptible

Location of Viewpoint 8 @ 1:25,000



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Existing



Proposed



Photomontage Parameters

Grid Ref	498097mE 104424mN	Horizontal Scale	6.1 mm per °
Elevation	5.8mAOD	Horizontal Field of View	90°
Viewing Direction	30°	Vertical Field of View	28°
Distance to Development	0.1km	Viewing Distance	350mm @ A2
Camera Details	Nikon D3100 With Sigma Fixed 30mm Lens	Weather and Lighting Conditons:	Overcast
Camera Height	1.7m		
Time and Date of Image Capture	09:00 2011/01/01		

Viewpoint Description

View north east from Yapton Lane north of railway crossing.

For viewpoint location plan please see WA drawing number: PE10439/Figure 1

Photograph used is a composite panoramic image

Please refer to main document appendix for methodology statement

Viewpoint	Drg No	Date
3	PE10439/Figure 15	December 2014
Drawn By: DW	Checked By: SKM	Approved By: HK

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PROJECT: Solar Farm on Land at Lower Farm, Yapton Lane, Walberton

DRAWING TITLE: Figure 15 Photomonotage from viewpoint 3

G:\PE10439\DESIGN\AUTOCAD\PE10439 FIGURE 15 YAPTON LANE VIEWPOINT 3 PHOTOMONTAGE REV A.DWG

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Existing



Proposed



Photomontage Parameters

Grid Ref	498958mE 104551mN	Horizontal Scale	6.1 mm per °
Elevation	2.7mAOD	Horizontal Field of View	90°
Viewing Direction	290°	Vertical Field of View	28°
Distance to Development	0.3km	Viewing Distance	350mm @ A2
Camera Details	Nikon D3100 With Sigma Fixed 30mm Lens	Weather and Lighting Conditons: Overcast	
Camera Height	1.7m		
Time and Date of Image Capture	11:44 2014/10/25		

Viewpoint Description

View west from PROW 355 south of Oakely Cottages.

For viewpoint location plan please see WA drawing number: PE10439/Figure 1

Photograph used is a composite panoramic image

Please refer to main document appendix for methodology statement

Viewpoint	Drg No	Date
5	PE10439/Figure 16	December 2014
Drawn By: DW	Checked By: SKM	Approved By: HK

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DRAWING TITLE: Figure 16 Photomontage from viewpoint 5

G:\PE10439\DESIGN\AUTOCAD\PE10439 FIGURE 16 YAPTON LANE VIEWPOINT 5 PHOTOMONTAGE REV A.DWG

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534 No. Corylus avellana 25%
641 No. Crataegus monogyna 30%
321 No. Fagus sylvatica 15%
214 No. Ilex aquifolium 10%
427 No. Prunus spinosa 20%

6 No. Fagus sylvatica
8 No. Quercus robur

7 No. Fagus sylvatica
6 No. Quercus robur

570 No. Corylus avellana 25%
684 No. Crataegus monogyna 30%
342 No. Fagus sylvatica 15%
228 No. Ilex aquifolium 10%
456 No. Prunus spinosa 20%

226 No. Corylus avellana 25%
271 No. Crataegus monogyna 30%
136 No. Fagus sylvatica 15%
91 No. Ilex aquifolium 10%
181 No. Prunus spinosa 20%

3 No. Fagus sylvatica

3 No. Quercus robur

311 No. Corylus avellana 25%
374 No. Crataegus monogyna 30%
187 No. Fagus sylvatica 15%
125 No. Ilex aquifolium 10%
249 No. Prunus spinosa 20%

0 50 100
metres

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KEY

- Site boundary
- Solar panels
- Hedgerow planting
- Oak (Quercus petraea) tree planting
- Beech (Fagus sylvatica) tree planting

NOTES

1. All existing trees, shrubs and sections of hedgerow on the site boundaries to be retained, proposed planting to fill gaps in boundary vegetation.

Planting Schedule

Trees

Number	Species	Height	Specification	Pot Size	Density
16 No.	Fagus sylvatica	2.0-2.5m	Feather :5 brks :RB		Counted
17 No.	Quercus robur	2.0-2.5m	Feather :5 brks :RB		Counted
2233 No.	Crataegus monogyna	60-80cm	BR :Transplant :1+1		0.3Ctr Double Staggered at 0.3m offset
1118 No.	Fagus sylvatica	60-80cm	BR :Transplant :1+1		0.3Ctr Double Staggered at 0.3m offset
746 No.	Ilex aquifolium	40-60cm	C :Leader and laterals	2L	0.3Ctr Double Staggered at 0.3m offset

Shrubs

Number	Species	Height	Specification	Density
1860 No.	Corylus avellana	60-80cm	BR :1+1	0.3Ctr Double Staggered at 0.3m offset
1489 No.	Prunus spinosa	60-80cm	BR :1+1	0.3Ctr Double Staggered at 0.3m offset

REVISION	DETAILS	DATE	DRAWN	CHK'D	APP'D
A	Layout amended	17/12/14	LG	HK	HK

CLIENT

LIGHTSOURCE

PROJECT

Solar Farm on Land at Lower Farm, Yapton Lane, Walberton

DRAWING TITLE

Figure 17
Planting Plan

DRG No	SCALE	DATE
PE10439/Figure 17	1:2 500@A3	November 2014
DRAWN BY	CHECKED BY	APPROVED BY
IW	SKM	HK

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