

Robin Hood Solar Farm

EIA Scoping Report

Request for Scoping Opinion under Town and Country
Planning (Environmental Impact Assessment) Regulations
2017

On Behalf of Robin Hood Solar Farm Ltd

794-PLN-NDIP-00672
Scoping Report
01
July 2026

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
01	Final	SR	AR	EA	July 2026

Approval for issue

Emily Avery	28 July 2026
-------------	--------------

All rights reserved.

This report was prepared by Tetra Tech within the terms of Tetra Tech engagement with its client and in direct response to a scope of services. This report is supplied for the sole and specific purpose for use by Tetra Tech's client. The report does not account for any changes relating the subject matter of the report, or any legislative or regulatory changes that have occurred since the report was produced and that may affect the report. Tetra Tech does not accept any responsibility or liability for loss whatsoever to any third party caused by, related to or arising out of any use or reliance on the report.

Prepared by:	Prepared for:
Tetra Tech	Qualitas Energy
Shuvangi Roy	Stuart Langer
Consultant – EIA and Sustainability	Planning Associate
101 Park Drive, Milton Park, Abingdon, Oxfordshire, OX14 4RY	58 Marylebone High Street, London, W1U 5HT
T +44 123 585 6712	
E shuvangi.roy@tetrattech.com	

Contents

1	Introduction.....	1
1.1	Overview.....	1
1.2	Project Overview.....	1
1.3	Statutory Framework and Purpose of EIA.....	3
1.4	Purpose of this EIA Scoping Report.....	3
1.5	Structure of this EIA Scoping Report.....	3
1.6	The Applicant and EIA Team	4
2	Project Description	5
2.1	Introduction.....	5
2.2	Project Location.....	5
2.3	Project Description.....	5
3	Approach to EIA.....	14
3.1	Introduction.....	14
3.2	Scoping Process.....	14
3.3	EIA Guidance	15
3.4	Key Principles of the Assessment.....	16
3.5	Proposed EIA Methodology	19
3.6	Cumulative Effects.....	25
3.7	Assessment of Inter-Related Effects.....	25
3.8	Approach to Consultation and Engagement.....	26
4	Proposed Scope of Assessment	28
4.1	Introduction.....	28
4.2	Landscape and Visual Effects – ES Chapter.....	28
4.3	Ecology and Nature Conservation – ES Chapter	44
4.4	Historic Environment – ES Chapter.....	64
4.5	Agriculture and Soils – ES Chapter.....	75
4.6	Cumulative Effects.....	85
5	Topics Proposed to be Scoped Out of Assessment	86
5.1	Introduction.....	86
5.2	Planning Policy Context.....	86
5.3	Material Assets	86
5.4	Daylight, Sunlight and Microclimate	87
5.5	Heat and Radiation	87
5.6	Geology, Hydrogeology and Ground Conditions	87
5.7	Glint and Glare	88
5.8	Traffic and Transport	88
5.9	Hydrology and Flood Risk.....	89
5.10	Air Quality	89
5.11	Noise and Vibration	90
5.12	Climate Change.....	90
5.13	Socio-economics	91
5.14	Population and Human Health	91
5.15	Risk of Major Accidents and Disasters.....	92
5.16	Waste	92
6	Summary of Proposed Scope	94
7	References	96

Tables

Table 1.1: Structure of this EIA Scoping Report.....	3
Table 2.1: Key Design Parameters for EIA Scoping	6
Table 3.1: EIA Guidance	15
Table 3.2: Definitions of Receptor Sensitivity	21
Table 3.3: Definitions of Magnitude of Impact	23
Table 3.4: Typical Assessment Matrix.....	24
Table 3.5: Summary of Local Community Consultation undertaken / programmed	26
Table 4.1: Structure of the ES.....	28
Table 4.2: View Ranges	35
Table 4.3: Candidate Viewpoints.....	35
Table 4.4: Impacts Proposed to be Scoped into the Assessment for Landscape and Visual Effects	40
Table 4.5: Designated Sites – Ecology and Nature Conservation	45
Table 4.6: Data Sources	48
Table 4.7: Ecology Scoping Summary	53
Table 4.8: Sensitivity Criteria.....	62
Table 4.9: Magnitude of Impact Criteria	63
Table 4.10: Designated Sites – Historic Environment.....	66
Table 4.11: Data Sources	67
Table 4.12: Impacts Proposed to be Scoped into the Assessment for the Historic Environment	70
Table 4.13: Impacts Proposed to be Scoped Out of the Assessment for the Historic Environment	71
Table 4.14: Sensitivity Criteria.....	73
Table 4.15: Magnitude of Impact Criteria	74
Table 4.16: Impacts Proposed to be Scoped into the Assessment for agriculture and soils	80
Table 4.17: Impacts Proposed to be Scoped Out of the Assessment for Agriculture and soils	81
Table 4.18: Sensitivity Criteria.....	83
Table 4.19: Magnitude of Impact Criteria	83
Table 6.1: Topics Proposed to be Scoped Out of Topic Chapters	94

Figures

Figure 1: Site Location Plan	2
Figure 2: Typical solar panel elevation	7
Figure 3: indicative design of perimeter fencing	9
Figure 4: indicative image showing perimeter fencing design.....	10
Figure 5: indicative construction traffic access route	12
Figure 6: Site location and landscape planning designations	31
Figure 7: Draft Indicative Layout, Landscaping and Ecology Plan	39
Figure 8: Location of residential receptors	43
Figure 9: Proposed Study Area and Sensitive Receptors.....	65
Figure 10: Agricultural Land Classification Survey of the Site.....	77

Acronyms

Acronym	Definition
AC	Alternating Current
ALC	Agricultural Land Classification
ALGAO	Association of Local Government Archaeological Officers
AVR	Accurate Visual Representation
BGS	British Geological Survey
BMV	Best and Most Versatile (Agricultural Land)
BNG	Biodiversity Net Gain
CCTV	Closed-Circuit Television
CEA	Cumulative Effects Assessment
CEMP	Construction Environmental Management Plan
CIEEM	Chartered Institute of Ecology and Environmental Management
CIfA	Chartered Institute for Archaeologists
CIRIA	Construction Industry Research and Information Association
CMLI	Chartered Member of the Landscape Institute
CSP	Concentrated Solar Power
CTMP	Construction Traffic Management Plan
DC	Direct Current
DCLG	Department for Communities and Local Government
DEFRA	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges
DNO	Distribution Network Operator
ECC	Essex County Council
EcIA	Ecological Impact Assessment
ECoW	Ecological Clerk of Works
eDNA	Environmental DNA
EHV	Extra High Voltage
EIA	Environmental Impact Assessment
EMF	Electromagnetic Fields
ES	Environmental Statement
FRA	Flood Risk Assessment
GIS	Geographic Information System
GLTA	Ground Level Tree Assessment
GLVIA	Guidelines for Landscape and Visual Impact Assessment
HEA	Historic England Archive
HEDBA	Historic Environment Desk-Based Assessment
HER	Historic Environment Record
HGV	Heavy Goods Vehicle
HPI	Habitat(s) of Principal Importance

Acronym	Definition
HSI	Habitat Suitability Index
HV	High Voltage
IEMA	Institute of Environmental Management and Assessment
IHBC	Institute of Historic Building Conservation
IPCC	Intergovernmental Panel on Climate Change
ISEP	Institute of Sustainability and Environment Professionals
ISMP	Invasive Species Management Plan
LAeq,T	Equivalent Continuous Sound Level over a Specified Time Period
LCA	Landscape Character Area
LEMP	Landscape and Ecological Management Plan
LI	Landscape Institute
LiDAR	Light Detection and Ranging
LV	Low Voltage
LVIA	Landscape and Visual Impact Assessment
LWS	Local Wildlife Site
MAFF	Ministry of Agriculture, Fisheries and Food
MAGIC	Multi-Agency Geographic Information for the Countryside
MV	Medium Voltage
NCA	National Character Area
NERC	Natural Environment and Rural Communities Act 2006
NHLE	National Heritage List for England
oCEMP	Outline Construction Environmental Management Plan
OEMP	Operational Environmental Management Plan
oLEMP	Outline Landscape and Ecological Management Plan
PAS	Portable Antiquities Scheme
PoC	Point of Connection
PRoW	Public Rights of Way
PV	Photovoltaic
PWMS	Precautionary Working Method Statement
SAC	Special Area of Conservation
SPA	Special Protection Area
SPZ	Source Protection Zone
TGN	Technical Guidance Note
UK	United Kingdom
UK BAP	United Kingdom Biodiversity Action Plan
UKCP18	UK Climate Projections 2018
ZoI	Zone of Influence
ZTV	Zone of Theoretical Visibility

Units

Unit	Definition
°	Degree
%	Percent
dB	Decibel
GW	Gigawatt
ha	Hectare
km	Kilometre
m	Metre
m ²	Square Metre
mm	Millimetre
kV	Kilovolt
km ²	Square Kilometre
m ³	Cubic Metre

1 Introduction

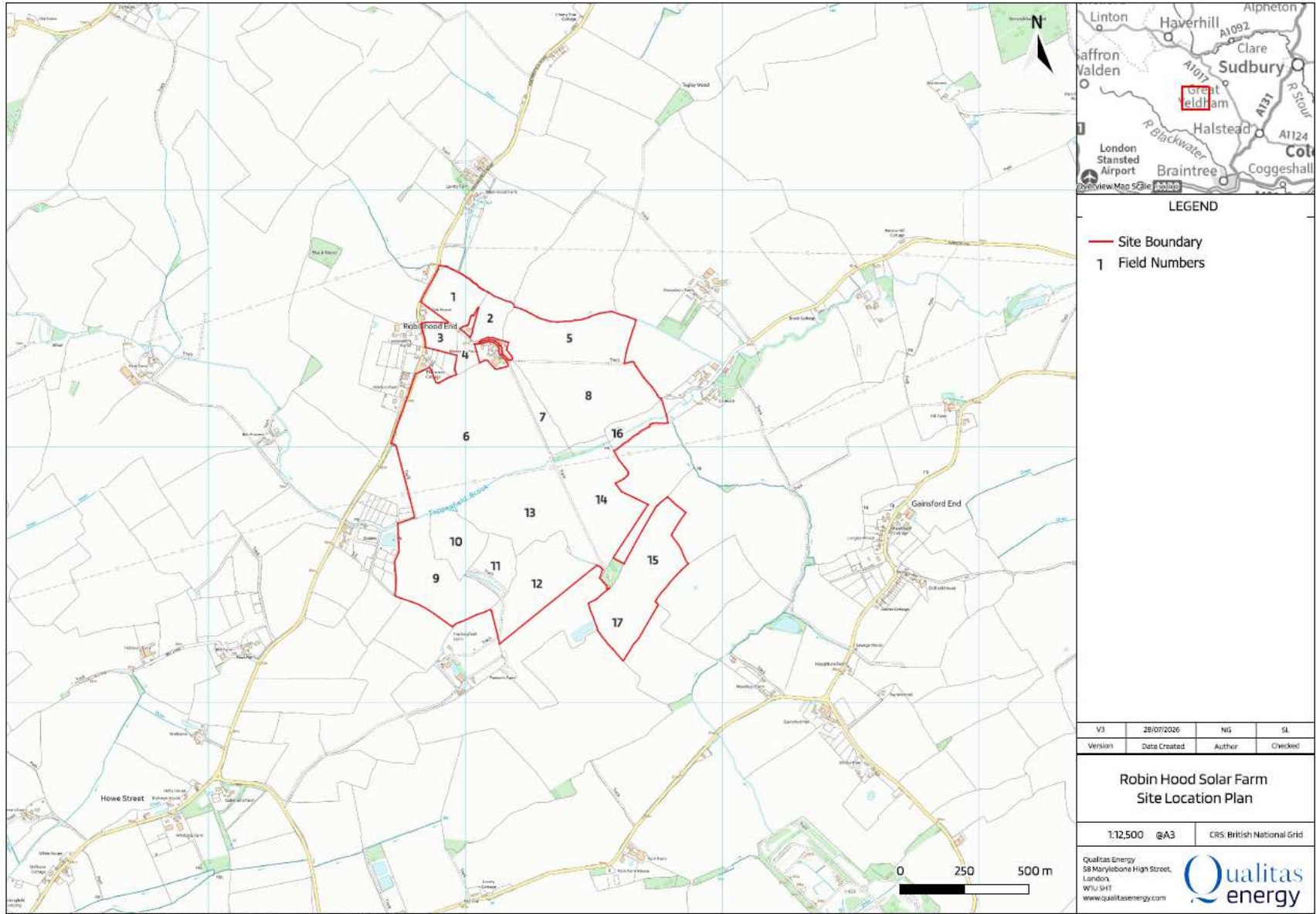
1.1 Overview

- 1.1.1 This Environmental Impact Assessment (EIA) Scoping Report has been prepared by Tetra Tech on behalf of Robin Hood Solar Farm Ltd (the 'Applicant'), a subsidiary company of QE Development Holdco Limited (Qualitas Energy). It relates to the proposed solar farm and ancillary infrastructure (hereafter referred to as the 'Proposed Development') at Robin Hood End, Finchingfield, Braintree, Essex, CO9 4NN ("the Site").
- 1.1.2 This EIA Scoping Report sets out the proposed approach and key topics to be included within the EIA process.

1.2 Project Overview

- 1.2.1 The Site lies approximately 3.2 km north east of Finchingfield, 5.5 km south west of Great Yeldham and 11 km north west of Braintree. The Proposed Development is wholly within the Braintree District Council administrative area.
- 1.2.2 The Site location is shown in **Figure 1**.
- 1.2.3 The Proposed Development would include the following elements:
- solar panels and frames;
 - inverters and transformers;
 - substation compound and control rooms;
 - underground cabling;
 - internal access tracks;
 - highway access;
 - upgrade to an existing on-site access bridge;
 - fencing and CCTV;
 - spare parts container;
 - surface water drainage;
 - landscape and biodiversity enhancements; and
 - temporary construction compound(s).
- 1.2.4 The Proposed Development would be a temporary project, proposed to operate for a period of 40 years, following which all electrical infrastructure and other hard infrastructure (fencing, internal access roads etc) would be removed and the Site returned to agricultural use.
- 1.2.5 Further details of the Proposed Development are provided in **section 2** of this EIA Scoping Report.

Figure 1: Site Location Plan



1.3 Statutory Framework and Purpose of EIA

- 1.3.1 EIA is the process of identifying and assessing the likely significant effects arising from a project. This requires consideration of the likely changes to the environment, where these arise as a consequence of a project, through comparison with the existing and projected future baseline conditions.
- 1.3.2 The relevant legislative requirements for EIA are set by the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 as amended (referred to as the 'EIA Regulations').

1.4 Purpose of this EIA Scoping Report

- 1.4.1 Scoping is not a mandatory requirement under the EIA Regulations. However, it is recognised as a useful part of the assessment process which helps to identify the effects that a project is likely to have on the environment.
- 1.4.2 The scoping of the EIA process by which effects are identified is, therefore, an important preliminary procedure, which sets the context for the study. Through the scoping exercise, environmental issues are identified at an early stage, which permits subsequent work to concentrate on those environmental topics for which significant effects may arise as a result of a project.
- 1.4.3 This EIA Scoping Report sets out details of the Proposed Development, the proposed EIA methodology and the proposed scope of technical assessments and invites comments from Braintree District Council and its consultees regarding the proposed scope of works. The intention of this scoping exercise is to gain agreement from all key parties regarding the proposed methodology and scope of assessment.
- 1.4.4 The aim of this report is to:
- identify the nature of the Proposed Development, including (where known) its purpose, physical characteristics, land use requirements and alternatives;
 - identify and describe the environmental topics that will be considered within the EIA (scoped in) and identify any environmental topics where significant environmental effects are unlikely to occur (and therefore the topics are proposed to be scoped out);
 - continue preliminary consultation with stakeholders; and
 - provide information to Braintree District Council to enable a Scoping Opinion to be made.

1.5 Structure of this EIA Scoping Report

- 1.5.1 This EIA Scoping Report provides the information required at the scoping stage under the EIA Regulations. The structure of this EIA Scoping Report is presented within **Table 1.1**.

Table 1.1: Structure of this EIA Scoping Report

Section	Topic	Author
1	Introduction	Tetra Tech
2	Project Description	Tetra Tech
3	Approach to EIA	Tetra Tech
4	Scope of Assessment	
4.2	Landscape and Visual Effects	Tetra Tech

Section	Topic	Author
4.3	Ecology and Nature Conservation	Avian Ecology
4.4	Historic Environment	Cotswold Archaeology
4.5	Agriculture and Soils	Aqua Terra
5	Topics Proposed to be Scoped Out of the Assessment	Tetra Tech
6	Summary of the Proposed Scope	Tetra Tech
7	References	
Appendices		
A	Cumulative Developments	Tetra Tech
B	Landscape and Visual Impact Assessment Methodology	Tetra Tech

1.6 The Applicant and EIA Team

- 1.6.1 Robin Hood Solar Farm Ltd (the 'Applicant') is a subsidiary company of QE Development Holdco Limited (Qualitas Energy). Qualitas Energy is a leading global investment and management platform with a dual focus on both funding and developing renewable energy, energy transition, and sustainable infrastructure.
- 1.6.2 It's existing portfolio currently comprises over 14 GW of operational and development-stage renewable energy assets – including solar photovoltaic (PV), concentrated solar power (CSP), wind, energy storage, hydroelectric power, and renewable natural gas – across the United Kingdom (UK), mainland Europe, Chile and the United States.
- 1.6.3 In the UK, Qualitas Energy is constructing Belvoir Solar Farm (Leicestershire) and it has submitted a planning application for Heolddu Solar Farm (Carmarthenshire). Additionally, it is actively progressing six solar farm planning projects around the country together with onshore wind projects and a biomethane gas generating business with two operational plants and three consented plants being progressed into development.
- 1.6.4 Tetra Tech has been contracted to provide this EIA Scoping Report. Tetra Tech are accredited members of the EIA Quality Mark, administered by the Institute of Sustainability and Environment Professionals (ISEP). The EIA team responsible for drafting this report includes a number of topic specialists, as set out in **Table 1.1**.
- 1.6.5 In accordance with the EIA Regulations, the Environmental Statement (ES) will be prepared by competent experts. The ES will outline the relevant expertise of those experts.

2 Project Description

2.1 Introduction

- 2.1.1 This section provides a description of the Proposed Development, based on the information available at the time of writing. This has been used to inform the scoping process. It provides a description of the key components of the Proposed Development, including an overview of the approach to the construction, operation and maintenance and decommissioning phases.
- 2.1.2 As set out in **section 1.2**, the Proposed Development includes the following key components.
- solar panels and frames;
 - inverters and transformers;
 - substation compound and control rooms;
 - underground cabling;
 - internal access tracks;
 - highway access;
 - upgrade to an existing on-site access bridge;
 - fencing and CCTV;
 - spare parts container;
 - surface water drainage;
 - landscape and biodiversity enhancements; and
 - temporary construction compound(s).
- 2.1.3 The proposed development is to be a temporary project, which is proposed to operate for a period of 40 years, following which it will be decommissioned and the land returned to agricultural use.

2.2 Project Location

- 2.2.1 The Site is located on land comprising agricultural fields, approximately 3.1 km from Finchingfield, which lies to the south west of the Site, 5.5 km from Great Yeldham in the north east, and 11 km from Braintree in the south east. It is approximately 22 km from the M11 (straight line distance).
- 2.2.2 The Site is approximately 112 hectares (ha), located south east of Robin Hood End.
- 2.2.3 The Site is located in a predominantly rural area, surrounded by rural settlements, agricultural land and rural businesses.
- 2.2.4 A Site location plan is provided in **Figure 1** above.

2.3 Project Description

Introduction

- 2.3.1 This section of the EIA Scoping Report sets out details of the anticipated design parameters for the Proposed Development. These parameters are preliminary and will be developed and refined further ahead of submission of the planning application. However,

they are based on current knowledge and include sufficient information to allow identification of the likely significant effects of the Proposed Development for the purposes of scoping. The topic sections of this EIA Scoping Report have taken the parameters identified in this section into account, to allow identification of the potential impacts and likely significant effects that should be included and those that can reasonably be excluded from the EIA process.

Design Parameters

2.3.2 **Table 2.1** summarises the design parameters, as understood at this stage.

Table 2.1: Key Design Parameters for EIA Scoping

Project Element	Key Parameter for EIA
Site area (hectares)	112
Operational Parameters	
Area of solar installation (ha)	61
Maximum array height (m)	3
Number of inverters	17
Number of transformers	10
Area of substation compound (m ²)	2,100
Maximum communication tower height (m)	15.2
Maximum substation infrastructure height (m)	Up to 6
Maximum fence height (m)	2.4
Maximum CCTV height (m)	3
Area of landscape/biodiversity planting/semi-natural greenspace (Ha)	49
Surface drainage infrastructure	Design to be confirmed, will include flow attenuation and surface water quality control.
Operational access	From Finchingfield Road
Project operational period	40 years
Construction Parameters	
Construction compound area (m ²)	5,625
Construction access	Same as operational access, from Finchingfield Road
Construction phase duration (months)	15 – 18
Depth of PV panel piles (m)	1.5
Depth of excavation for underground cabling (m)	Up to 1

Design Elements

Solar Panels and Frames

2.3.3 Solar panels, also known as photovoltaic (PV) panels, are made up of cells, which convert the light energy from daylight into electrical energy.

- 2.3.4 The solar panels would be attached to mounting structures which together form PV tables (or modules). The PV tables would be fixed to pile driven galvanised steel posts. The mounting structures are typically made of galvanised steel or aluminium alloy coating and would have a rough matt finish, rather than a polished finish. The base of the mounting structures are thin 'H' or 'C' shapes, thus they have very little impact on the ground and do not require any prior excavation. The mounting structures are driven to a depth of approximately 1.5 m, depending on ground conditions. When the Site is decommissioned, the mounting structures are simply pulled out from the ground causing minimal ground disturbance. **Figure 2** shows an indicative section of the solar panels on their mounting structures.
- 2.3.5 The frames would allow the panels to be positioned at an angle of between 10-30 degrees from the horizontal axis and orientated to the south, typically the height of a panel would be up to approximately 3 m to the top of the panel frame on level ground, including up to approximately 0.8 m of ground clearance to enable maintenance access and continued sheep grazing below the PV modules.
- 2.3.6 A solar panel array comprises multiple rows of PV tables running east to west. Between each row of solar panels there would be a gap of approximately 2.0-6.0 m to avoid overshadowing from one solar row to another.

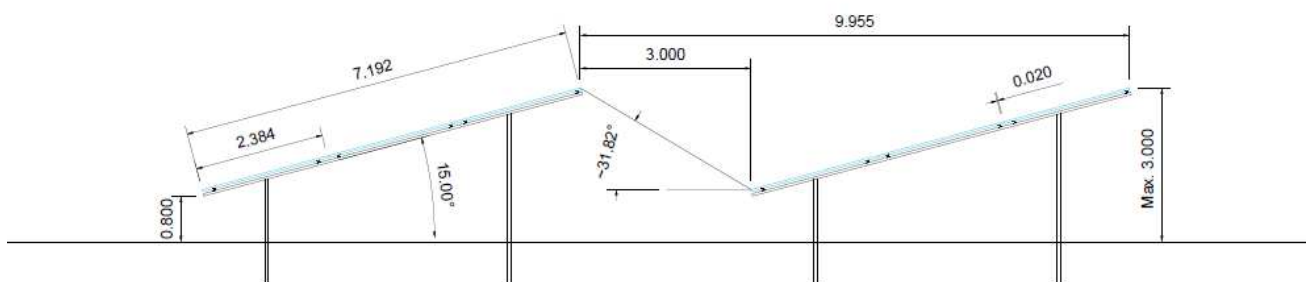


Figure 2: Typical solar panel elevation

- 2.3.7 The area required for solar panels arrays extends over 10 fields and would cover approx. 61 hectares, representing a worst-case scenario for the purposes of this EIA Scoping Report.
- 2.3.8 The PV tables would be set back from the field boundaries to allow for landscaping and screen planting, perimeter security fencing, CCTV coverage, access tracks and maintenance access, as well as to accommodate ecological and arboricultural receptors as necessary. Where access tracks are not proposed between the PV tables and the Site boundaries, the PV tables would be sited a minimum of 5 m from hedgerow boundaries (with larger distances proposed in some areas, up to 20 m and 30 m).

Inverters and Transformers

- 2.3.9 The inverters are containerised units that are required to convert the Direct Current (DC) electricity generated by the solar panels, to Alternating Current (AC) which is compatible with the wider UK grid network. The inverter type for the Proposed Development will be 'centralised' inverters. These are located on a hardstanding (to comprise a concreted

surface laid on a base of compacted aggregate) and sited next to the medium voltage (MV) transformers either as Twin Skids or Single Skids.

- 2.3.10 From the inverters, the electricity flows to a MV transformer which ‘steps-up’ the voltage of the electricity from low voltage (LV) to medium voltage (MV) before it reaches the proposed substation. The inverters have a unit height of 2.2m and the MV transformers will have a unit height less than 3m.

Substation Compound and Control Rooms

- 2.3.11 The proposed Point of Connection (PoC) for the solar farm would be at the existing 132kV overhead line located on the Site using one of the existing on-site towers.
- 2.3.12 All electricity from the solar panels would collect at the proposed substation which comprises the Distribution Network Operator (DNO) and customer substation compounds. The compounds would be enclosed by a 2.4 m palisade fence which would typically comprise galvanised steel silver or coated in a matt olive green or brown. Structures within the compound would vary in height, up to 6m.
- 2.3.13 A control room is required to enable remote monitoring and control of the solar farm. There would be one customer control room and one DNO control room both located adjacent (external to) to the DNO and customer substation compounds. These buildings would provide daily information / data in relation to the operation of the solar farm.
- 2.3.14 The DNO control room would be up to approximately 6.7 m in length, 5 m wide and 3.4 m high. The customer control room would be up to approximately 10.3 m in length, 4 m wide and 3.3 m high. Both control rooms would be likely to be olive green, brown or stone coloured in accordance with local colour guidelines.
- 2.3.15 The combined size of the area required for the substation compound, DNO and customer control room is approximately 70 m x 30 m.
- 2.3.16 Adjacent to the DNO and customer control room compound would be a standalone communications tower. The communications tower would measure up to approximately 15.2 m in height.

Underground Cabling

- 2.3.17 It is currently anticipated that all of the cabling within the Site would be laid underground via surface dug trenches of up to approximately 1 m deep and 0.5 m wide and backfilled, restoring the cable corridors to the previous appearance. The cables would need to cross Toppesfield Brook (a main river), which runs on an east-west direction across the Site. The design solution for this is still being determined but is likely to include an upgrade to the existing bridge crossing between Fields 6 and 9, to include concrete-enclosed cable ducting.

Internal Access Tracks

- 2.3.18 On-site access tracks would be required to facilitate the construction of the Proposed Development in addition to maintenance activities during the operational phase. The maximum width of the on-site access tracks would be 4.5 m and the depth excavated would be up to 350 mm with soil either stored in bunds or spread across the Site. The tracks would be formed of aggregate placed on a membrane to prevent it from mixing with the underlying soil. At decommissioning stage, the track material would be removed from the Site and the topsoil would be replaced either from on Site (if it was stored in bunds) or with imported clean topsoil.

- 2.3.19 Where internal access tracks cross into tree root protection areas, grid-based tree-protective construction measures will be used (such as Ecogrid).

Highway Access

- 2.3.20 Access to the Proposed Development is anticipated be via an existing gated field access along Finchingfield Road, which will be upgraded to accommodate construction vehicles, a preliminary access design sufficient for planning purposes will be submitted to Braintree District Council with the planning application.

Upgrade to an existing on-site access bridge

- 2.3.21 It is necessary to cross Toppesfield Brook (which runs on an east-west alignment though the approximate centre of the Site) to connect all of the parcels of the solar farm. There are two existing crossing points, the westernmost is located between Fields 6 and 9, and the easternmost is between Fields 6 and 13. It is proposed to upgrade the westernmost crossing point (between Fields 6 and 9) using a bespoke bridge design. The current proposal is to upgrade this existing crossing by placing a new bridge deck over the existing crossing. This approach minimises interaction with the water channel as the new structure is placed on top of the existing one and will not require changes to the water channel itself. No works are proposed to the easternmost existing bridge as part of the Proposed Development.

Fencing and CCTV

- 2.3.22 The Proposed Development would be secured by perimeter fencing. This would be galvanised deer fencing fixed to wooden posts at circa 3.5 m intervals. The fence would be 2.4 m high with small mammal gates fitted at appropriate points to enable free access for small mammals (such as badgers, if present) into and out of the Site. The perimeter security fencing would function to restrict unauthorised access into the Site and to deter theft or vandalism. Deer fencing has been selected due to its relative visual permeability and minimal impact on natural surface water flows.

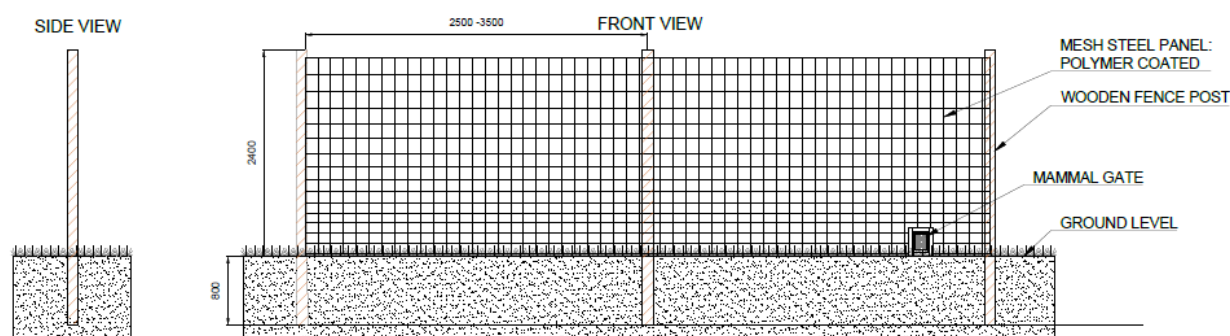


Figure 3: indicative design of perimeter fencing



Figure 4: indicative image showing perimeter fencing design

- 2.3.23 CCTV would be mounted on columns within the perimeter of the Site, up to approx. 3 m in height including antennae. These would face inwards.

Lighting

- 2.3.24 During operation there is no requirement for the Site to be lit.

Spare Parts Containers

- 2.3.25 The Proposed Development would also include spare parts containers. These would be located on Site adjacent to the main access point off Finchingfield Road. The dimensions of each spare parts container would be approximately 6.1 m in length, 2.5 m side and 2.6 m high. The containers would be placed on an approx. 150 mm tall concrete bases.

Surface Water Drainage

- 2.3.26 The Proposed Development would also include surface water drainage provisions. The design of these will be developed during the EIA process and could include the provision of swales to help attenuate water runoff. The suitability of the Site for infiltration will be considered.

Landscape and Biodiversity Enhancements

- 2.3.27 The Proposed Development would include landscape and biodiversity enhancements to be designed following landscape and visual and ecological impact assessment work. Low intensity sheep grazing to provide farming and ecological benefits is also being considered.
- 2.3.28 Potential areas for ecological and landscape enhancement have been identified in Fields 1, 2, 3, 4, 5, 7 and 16. Other field margin wildlife gains will also be designed in where appropriate.
- 2.3.29 The ES will be accompanied by a biodiversity net gain (BNG) assessment and landscape and ecological management plan (LEMP). The Proposed Development will be designed to meet at least the 10% legal requirement.

Temporary construction compound

- 2.3.30 During construction and decommissioning, a temporary construction compound would be required to host staff welfare facilities, take deliveries of components and store plant and equipment securely while not in use. The compound would be located within areas of solar panel and removed as part of the phased completion of the Proposed Development.
- 2.3.31 The temporary compound would be up to approximately 75 m x 75 m in size and located in Field 6.

Public Rights of Way

- 2.3.32 There are four Public Rights of Way (PRoW) on the Site including Footpath 7, Footpath 12, Bridleway 10 and Byway 52. These would be retained during construction, operation and decommissioning. The design of the Proposed Development provides offsets for these and provides new planting to create attractive environments for PRoW users.

Proposed Permissive Rights of Way

- 2.3.33 A Proposed Permissive Bridleway is included in the Proposed Development along the northern boundaries of Fields, 1, 2 and 5, and broadly follows the eastern boundary of Field 5.

Construction Phase

- 2.3.34 Construction would be carried out in a phased manner, with the works focused on the installation of the solar arrays and associated electrical and access infrastructure.
- 2.3.35 The construction phase of the Proposed Development is expected to last between 15 and 18 months, however more detailed phasing will be developed during the course of the EIA.

Construction Traffic and Access

- 2.3.36 Access to the Proposed Development is proposed via an existing gated field access along Finchingfield Road, which will be upgraded to accommodate construction (and operational vehicles). A preliminary access design will be submitted to Braintree District Council alongside the planning application.
- 2.3.37 A small number of vehicles may utilise the existing farm access which accesses directly to Finchingfield Road at grid reference TL708364. However this would only be in relation to works for carrying out environmental mitigation or biodiversity net gain in Fields 1, 2, 3 or 4, and potentially for providing the proposed permissive Bridleway in Fields 1 and 2. The number of vehicles using the farm track would be very low and would not differ in terms of the type of vehicles, or the intensity of use compared to the present day situation. No changes to the existing farm access are proposed given the very low level of use.
- 2.3.38 The construction period is anticipated to last approximately 15-18 months. Construction traffic is expected to be low, with an average of no more than 20 heavy goods vehicles (HGVs) trips per day (10 arrivals plus 10 departures), with a peak of approximately 30 trips per day (15 arrivals plus 15 departures). It is proposed that during construction there will be a peak of 70-80 staff on site equating to 80 arrivals and 80 departures, with car sharing and workplace travel planning this is estimated to reduce to 40 arrivals and 40 departures. The decommissioning of the Proposed Development would be expected to generate a similar (or fewer) number of vehicle trips as the construction phase, since there would not be the same requirement to transport the material separately. The vehicle movements associated with the decommissioning phase would be discussed with Braintree District

Council and ECC prior to commencement and appropriate measures would be agreed as necessary at that time.

- 2.3.39 A transformer would be delivered to the Site via an abnormal indivisible load vehicle however this is a one-off movement and therefore does not create any significant environmental impact and can be managed. The route and details of any abnormal indivisible vehicle will be submitted to and agreed with Braintree District Council in consultation with ECC. The proposed routing of the construction traffic is via a one-way arrival and departure circular system whereby arrivals would be from the north-east from the A1017 via Stambourne with departures to the west to the A1017 at Haverhill via Howe Street, Cornish Hall End and Steeple Bumpstead.

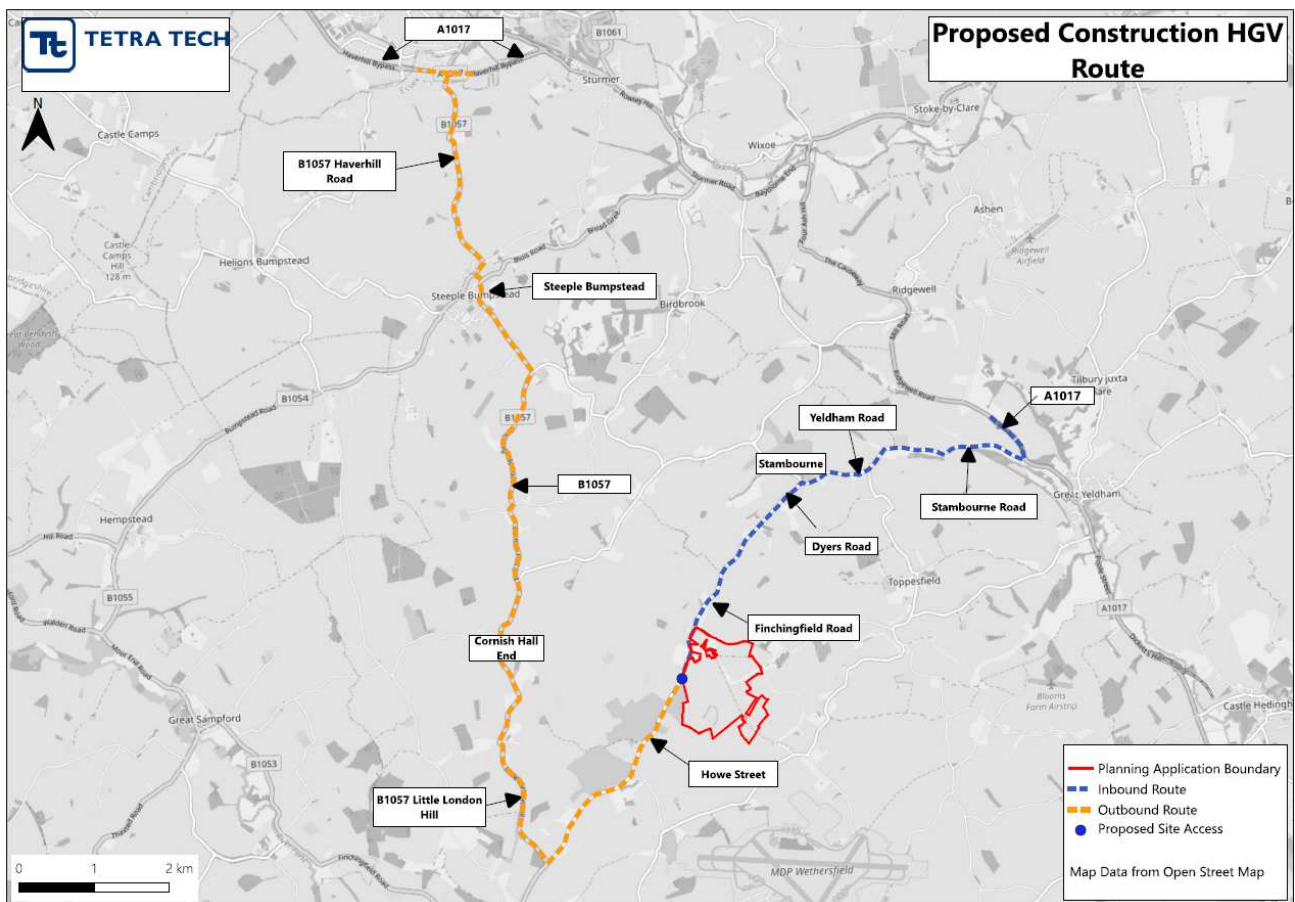


Figure 5: indicative construction traffic access route

- 2.3.40 Once operational, agricultural use of the Site will reduce, as such the operational traffic will be offset against this reduction.

Construction Lighting

- 2.3.41 During construction, temporary task lighting may be required dependent upon the time of year and weather conditions. This would only be used as necessary and any task lighting would not be illuminated permanently.

Construction Environmental Management

- 2.3.42 Standard best practice measures would be implemented during the construction phase to mitigate any adverse effects. These will be set out in the outline Construction Environment

Management Plan (oCEMP) accompanying the application, and would guide the management of construction activities, including site controls, working practices and environmental protection measures.

Operation and Maintenance

- 2.3.43 The Proposed Development would operate as a solar farm for a period of 40 years. During the operational phase, electricity generated by the solar panels would be collected at the proposed substation, with the scheme monitored and controlled remotely from the customer and DNO control rooms. The development is designed to operate with very limited on-site activity.
- 2.3.44 Operational maintenance would be periodic and generally low intensity, comprising routine inspections, preventative maintenance, electrical testing, and occasional repair or replacement of components as required. Vegetation management and landscape maintenance would also be undertaken to ensure the continued safe and efficient operation of the solar array and associated infrastructure. The Site also has the potential to accommodate low-intensity sheep grazing beneath the panels where appropriate.
- 2.3.45 Operational traffic is expected to be minimal, with only occasional visits by maintenance staff and light goods vehicles. Traffic flows during operation are anticipated to be very low, with approximately 3–4 light goods vehicles per month. Overall, the operational phase would involve limited activity and a very low level of movement to and from the Site.

Decommissioning Phase

- 2.3.46 At the end of its operational life, the Proposed Development would be decommissioned and removed, and the Site returned to wholly agricultural use.
- 2.3.47 During the decommissioning phase, all the solar infrastructure including solar panels, solar panel mounting structures, above ground cabling, inverters, transformers, fencing, CCTV, internal access roads and on-site substations and communication tower would be removed and recycled or disposed of in accordance with good practice following the waste hierarchy, with materials being reused or recycled whenever possible. All waste will be disposed of in accordance with the legislation at the time of decommissioning.
- 2.3.48 The underground ducting and joint bays associated with the cables will be decommissioned in accordance with the latest regulations and good practice at that time but are anticipated to be left in-situ to minimise adverse environmental effects. It may be possible to remove the cable itself by extracting it at the joint bays from within the ducting, so that the cable can be recycled.
- 2.3.49 The decommissioning works would be undertaken in a planned and controlled manner, with a programme expected to be similar in duration and nature to the construction phase. As with construction, decommissioning would involve associated vehicle movements, plant and equipment, and temporary working areas. Decommissioning activities and related impacts would be temporary.
- 2.3.50 Following removal of the operational infrastructure, ground surfaces and affected areas would be reinstated as necessary to support the return of the land to agricultural use. This would include the removal of any temporary hardstanding and reinstatement of soils, with the overall objective of restoring the Site back to its agricultural use.

3 Approach to EIA

3.1 Introduction

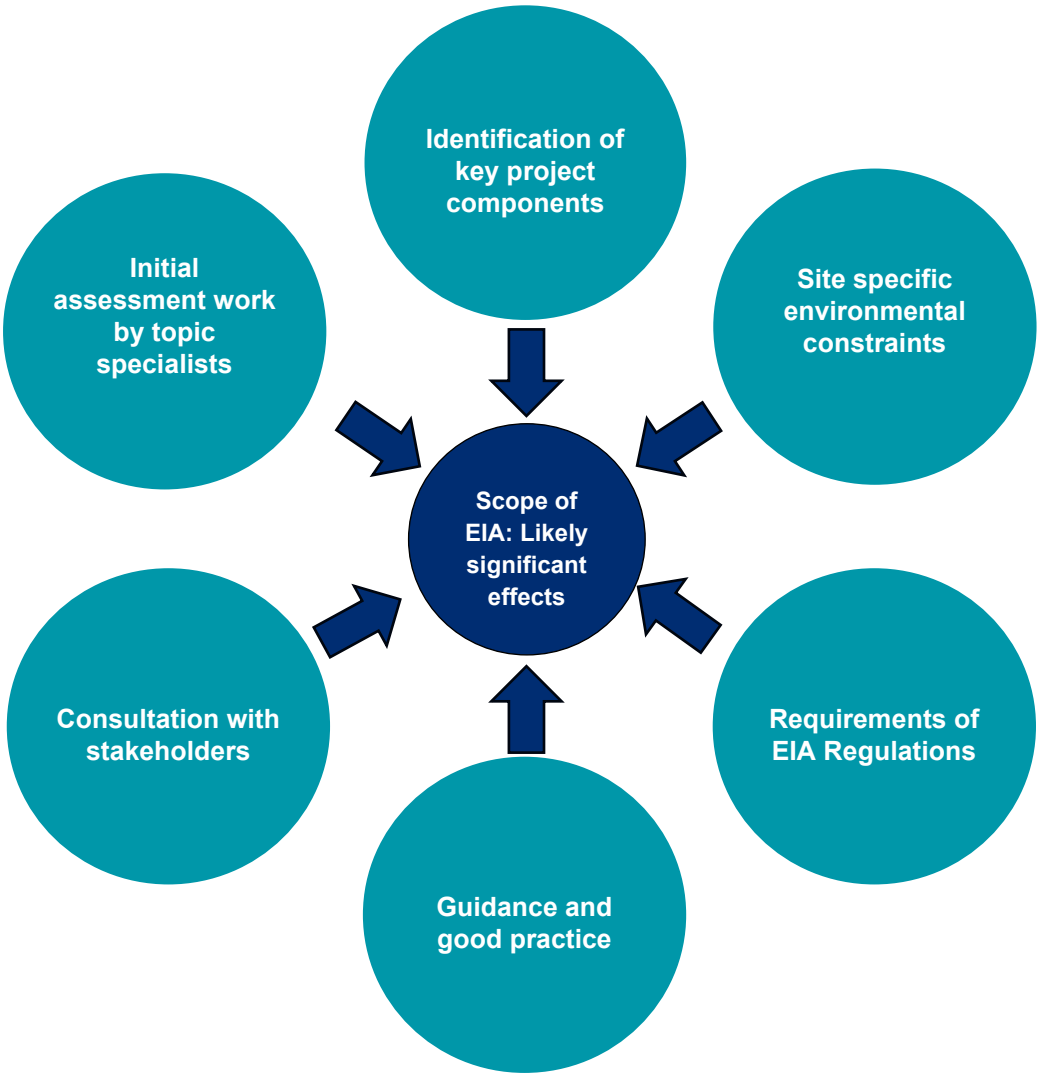
- 3.1.1 This section considers the approach to EIA including the assessment methodology. The EIA process broadly consists of the following stages.
- EIA Screening: The Applicant considers whether EIA is required, based on the scale and nature of the Proposed Development and the thresholds set out in the EIA Regulations. For the Proposed Development, the Applicant requested a Screening Opinion from Braintree District Council. Taking into account Screening Opinion provided, the Applicant is undertaking EIA for the Proposed Development.
 - EIA Scoping: The Applicant produces an EIA Scoping Report (this document) and requests a formal Scoping Opinion. Further details of the scoping process are provided in **section 3.2**.
 - Pre-application consultation: The Applicant has undertaken, and is continuing to undertake, consultation and engagement with the local community and technical stakeholders. Further details of the consultation undertaken to date and further pre-application consultation planned to be undertaken ahead of submission of the applications are provided in **section 3.8**.
 - Preparation of the ES: The findings of the EIA process will be presented in the ES to accompany the application.
 - Submission of the planning application: the Applicant submits the full planning application and the ES to Braintree District Council.
 - Determination: The relevant authority is required to examine all the environmental information, including the ES, as well as any comments and representations received from consultation bodies and the public, to enable them to reach a reasoned decision with regard to whether or not consent should be granted.

3.2 Scoping Process

- 3.2.1 Scoping is the approach to identifying the issues to consider within the EIA process (establishing the scope of the assessment). As set out in section 1.4 of this EIA Scoping Report, scoping is an important preliminary stage, which sets the context for the rest of the EIA process. Through scoping, the key environmental issues are identified at an early stage, which permits subsequent work to concentrate on those environmental topics for which significant effects may arise.
- 3.2.2 Scoping should be iterative, informed by increasing knowledge acquired through the EIA process. **Diagram 3.1** highlights some of the key inputs to the scoping process. These inputs include the identification of the project components and activities, the characteristics of the environment and the requirements of the EIA Regulations. This information is used to inform the scope of assessment through the use of internal project team discussions, consultation and the findings of initial assessment by topic specialists.
- 3.2.3 This EIA Scoping Report presents the findings of the scoping stage. Taking into account the work undertaken to date, it identifies the topics and impacts that will be considered within the EIA process and reported within the ES. Each topic area is considered, setting out the proposed scope of assessment and identifying any impacts proposed to be scoped out (where no significant effects are likely).
- 3.2.4 As assessment work continues and surveys are completed, new issues may arise, or it may become apparent that some potential impacts are not likely to result in significant

effects. Where this is the case, the findings of the assessment process will be discussed with consultees to allow for the scope of the assessment to be refined as appropriate.

Diagram 3.1: Overview of the Scoping Process



3.3 EIA Guidance

3.3.1 Relevant guidance will be considered, including that set out in **Table 3.1**.

Table 3.1: EIA Guidance

EIA Guidance Documents
Relevant National Policy
National Planning Policy Framework (Ministry of Housing, Communities and Local Government and Department for Levelling Up, Housing and Communities, 2024).
Institute of Environmental Management and Assessment (IEMA, now Institute of Sustainability and Environmental Professionals) Guidance
Guidelines for Environmental Impact Assessment (IEMA, 2004).
Environmental Impact Assessment Guide to: Shaping Quality Development (IEMA, 2015a).
Climate Change Resilience and Adaptation (IEMA, 2015b).
Environmental Impact Assessment Guide to: Delivering Quality Development (IEMA, 2016).
Delivering Proportionate EIA, A Collaborative Strategy for Enhancing UK Environmental Impact Assessment Practice (IEMA, 2017).

EIA Guidance Documents
Effective Non-Technical Summaries for Environmental Impact Assessments (IEMA, 2023).
Implementing the Mitigation Hierarchy from Concept to Construction (IEMA, 2024).
The use of Artificial Intelligence in Environmental Impact Assessment (ISEP, 2025)
Other Relevant Guidance
Design Manual for Roads and Bridges: Sustainability and Environmental Appraisal. LA 104: Environmental assessment and monitoring (Highways England <i>et al.</i> , 2020).
Planning Practice Guidance (Ministry of Housing, Communities and Local Government and Department for Levelling Up, Housing and Communities, 2024).

- 3.3.2 Other topic-specific methodologies and good practice guidelines will be drawn on as necessary. These are set out within the relevant topic sections of the EIA Scoping Report.
- 3.3.3 A full account of applicable legislation and guidance taken into account within the EIA methodology will be documented within the ES.

3.4 Key Principles of the Assessment

Overview

- 3.4.1 The EIA process will assess the impacts likely to arise from the construction, operation and maintenance and decommissioning phases of the Proposed Development. The assessment of each environmental topic (as listed in **Table 1.1** of this EIA Scoping Report) will form a separate chapter of the ES. For each environmental topic, the following will be addressed.
- Identification of the study area for the topic-specific assessments.
 - Description of the legislative and planning policy context.
 - Summary of consultation activity undertaken.
 - Methodology for assessment and relevant guidance.
 - Description of the environmental baseline conditions.
 - Presentation of the impact assessment, including the following.
 - A description of the measures embedded as part of the Proposed Development, including design measures which seek to prevent, reduce or offset environmental effects.
 - Identification of likely impacts and assessment of the significance of resulting effects.
 - Identification of any further (secondary) mitigation measures required in respect of likely significant effects, together with consideration of any residual effects.
 - Identification of any future monitoring required.
 - Assessment of any cumulative effects with other major developments, including those that are proposed, consented and under construction (including, where applicable, those projects, plans or activities that are currently operational that were not operational when baseline data was collected or that have an ongoing effect).
 - Assessment of any transboundary effects (i.e., effects on other states).
- 3.4.2 Details of the approach to assessing inter-related effects are set out in **section 3.7** below.

Proportionate EIA

- 3.4.3 This EIA Scoping Report has been developed using a number of tools and processes with the aim of producing a proportionate ES (as per IEMA, 2017). These tools and processes will also be applied within the ES. The approach to proportionate EIA will include use of the following tools in order to deliver a proportionate approach.
- Effective scoping. The approach to be agreed through the scoping process will be carried through to the EIA phase, with ongoing refinement where required through consultation with stakeholders (see below).
 - Ongoing engagement. The approach to community and stakeholder engagement throughout the EIA process will allow for ongoing consideration of the necessary scope. Survey findings and the outcomes of assessments will be discussed to agree refinements to the scope, where appropriate and justifiable.
 - Digital outputs. GIS mapping and digital tools (such as capture of existing datasets) will be used throughout the EIA process to communicate results of the process clearly.

Iterative Design

- 3.4.4 During the EIA process, environmental impacts will be taken into account in the iterative design process, following the mitigation hierarchy (avoid, prevent, reduce or offset impacts), such that the findings of ongoing surveys and assessment work, alongside ongoing pre-application consultation with statutory consultees and the community, will inform subsequent stages of design. EIA will therefore be used as a means of informing the design.

Evidence-based Approach

- 3.4.5 Existing data/knowledge available within the study area for each topic will be used, where available in the public domain, to supplement the site-specific survey data required, to:
- characterise the baseline environment to inform the EIA where data is sufficient and appropriate to do so;
 - scope out impacts where there is a clear evidence-base; and
 - where impacts are scoped in, to draw upon the pre-existing evidence-base where appropriate.

Spatial Scope

- 3.4.6 The spatial scope of each individual technical assessment is set out by reference to the study area, along with justification and explanation as to how the area has been defined, including relevant guidance where necessary. These study areas are defined and described in **section 4**.

Project Parameters

- 3.4.7 It is often the case that where consent is applied for and obtained before construction commences, there may be design elements that are unknown to an applicant at the time of application. In such cases, a parameters-based approach (also known as the Rochdale Envelope approach) may be used. This approach defines a design envelope and parameters within which the final design will sit. It allows flexibility for elements that are likely to require more detailed design subsequent to submission of an ES, such as siting of infrastructure and construction methods. It also allows the findings of the consultation

process and feedback from statutory and non-statutory stakeholders to be considered during the design process, where appropriate.

- 3.4.8 The adoption of this approach allows meaningful EIA to take place by defining maximum parameters on which to base the identification of likely environmental effects. The maximum parameter is that which would give rise to the greatest impact (and subsequent effect). For example, where several design options are under consideration, the assessment will be based on the option predicted to have the largest magnitude of impact. This may be the option with the largest footprint, the greatest height or the largest area of disturbance during construction, which could vary depending on the topic under consideration. By identifying the maximum parameter, it can be concluded that the impact (and therefore the resulting effect) would be no greater for any other design scenario.

Uncertainty

- 3.4.9 There is some degree of inherent uncertainty within the EIA process, in relation to factors such as future improvements to construction and design, the potential effects of climate change on existing receptors and in terms of the margin of error within forecasting or modelling tools. The text below sets out the proposed approach to addressing uncertainty. In all cases, where uncertainty exists, this will be identified within the relevant chapter of the ES, together with details of the measures that have been taken to reduce uncertainty as far as reasonably practicable.

Future Baseline and Assessment Years

- 3.4.10 The baseline for the assessment of environmental effects will primarily be drawn from evidence collated during review of desktop data and site-specific environmental surveys. Consideration will also be given to any likely changes between the time of data collection/survey and the future baseline for the construction, operation and maintenance, and decommissioning of the Proposed Development. In some cases, these changes may include the construction or operation of other planned developments in the area. Where such developments are built and operational at the time of writing and data collection, these will be considered to form part of the baseline environment (unless they have an ongoing effect). Where sufficient and robust information is available, such as expected traffic growth figures, other future developments will be considered as part of the future baseline conditions. In all other cases, planned future developments will be considered within the assessment of cumulative effects.
- 3.4.11 The consideration of future baseline conditions will also take into account the likely effects of climate change, as far as these are known at the time of writing. It is recognised that there will be some element of uncertainty regarding future trends in environmental conditions and climate. Where accepted methodologies for identifying the likely effects of climate change are available, these will be considered in the assessment. For example, the UK Climate Projections project (UKCP18) provides information on plausible changes in climate for the UK (Met Office, 2018). Recent published research will also be reviewed to inform judgements on whether specific receptors are susceptible to the effects of climate change.

Forecasting and Modelling

- 3.4.12 Where forecasting and modelling tools are used, care will be taken to ensure that the tool selected is appropriate for the assessment, taking into account topic-specific good practice and guidance. Model assumptions will be described, and calibration will be used to ensure a reasonable degree of accuracy in measurements. Where required, uncertainty may be addressed by undertaking modelling for a number of scenarios and at representative points across the Proposed Development, where applicable. Topic chapters within the ES

will set out measures taken to address any uncertainty with regard to modelling inputs and outputs.

3.5 Proposed EIA Methodology

Existing Baseline Conditions

- 3.5.1 The existing and likely future environmental conditions in the absence of the Proposed Development are known as ‘baseline conditions’. Each topic chapter will include a description of the current (baseline) environmental conditions. This will be informed by:
- primary baseline studies (such as field studies, where relevant);
 - review of secondary sources (desk-based assessment and review of existing information and data local to or otherwise relevant to the Proposed Development); and
 - stakeholder engagement (detailed discussions with a range of relevant stakeholders to help expand on the findings from wider field and desk-based studies).
- 3.5.2 The baseline conditions within the topic study area will form the basis of the assessment, enabling the likely significant effects to be identified through a comparison with the baseline conditions.

Future Baseline Conditions

- 3.5.3 The consideration of future baseline conditions will also take into account the likely effects of climate change, as far as these are known at the time of writing. This will be based on information available from the UK Climate Projections project (UKCP18), which provides information on plausible changes in climate for the UK (Met Office, 2026) and on published documents such as the UK Climate Change Risk Assessment 2022 (HM Government, 2022).
- 3.5.4 Topic authors will also consider other factors relevant to identification of future baseline conditions, such as trends in population size of protected species or changes in socio-economic conditions over time.

Embedded Mitigation Measures

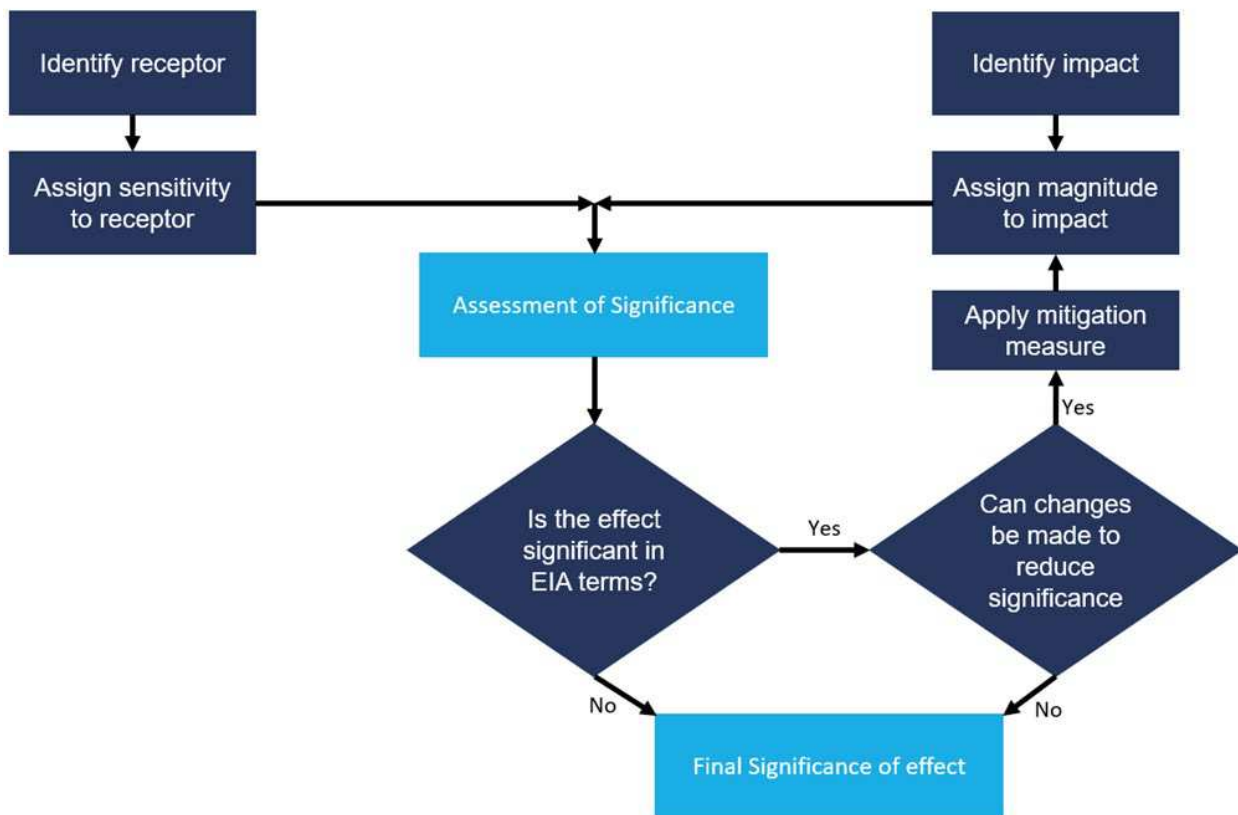
- 3.5.5 During the EIA process, environmental issues will be considered as part of an ongoing iterative design process, as detailed within **Diagram 3.2**, in accordance with the mitigation hierarchy. The process of EIA is being used as a means of informing the design.
- 3.5.6 The Proposed Development assessed within the ES will include a range of measures (referred to as embedded mitigation measures) that are designed to reduce or prevent significant adverse effects arising. In some cases, these measures may result in enhancement of environmental conditions.
- 3.5.7 Within the EIA process, the following mitigation measures will be defined as ‘embedded mitigation measures’ in line with the IEMA ‘Guide to Shaping Quality Development’ (IEMA, 2015) and mitigation hierarchy as set out in the IEMA guide to ‘Implementing Hierarchy from Concept to Construction’ (IEMA, August 2024).
- Primary (inherent) mitigation. These are measures included as part of the Proposed Development design. IEMA describes these as ‘*modifications to the location or design of the development made during the pre-application phase that are an inherent part of the project and do not require additional action to be taken*’. This includes modifications arising through the iterative design process. These measures will be

secured through the consent itself. These will often be design measures, such as avoidance of sensitive features or a reduction in footprint or height.

- Tertiary (inexorable) mitigation. IEMA describes these as ‘*actions that would occur with or without input from the EIA feeding into the design process. These include actions that will be undertaken to meet other existing legislative requirements, or actions that are considered to be standard practices used to manage commonly occurring environmental effects*’. Such measures may be secured through a Construction Environmental Management Plan (CEMP) or other management plans.

3.5.8 Embedded mitigation measures will be considered within the assessment of effects for each topic of the ES.

Diagram 3.2: Iterative Approach to Design and Mitigation



Assessment of Likely Significant Effects

- 3.5.9 Each topic chapter of the ES will clearly define its approach to the evaluation of significance. This section provides details of the overarching methodology proposed for the EIA process. This will be used to inform the approach to assessment for each environmental topic, except where topic-specific guidance or usual practice for that topic indicates otherwise (in which case any alternative approaches will be set out in the relevant chapter).
- 3.5.10 A range of impacts regarding the physical, biological and human environment, for onshore receptors, have the potential to arise from the Proposed Development. Where a change is caused by an action, this is defined as an ‘impact’. The consequence of an impact is defined using the term ‘effect’.

- 3.5.11 The overarching approach proposed takes into account both the sensitivity of receptors affected and the magnitude of the likely impact in determining the significance of the effect. In all cases, the evaluation of significance will be underpinned by a narrative approach and professional judgement.

Sensitivity or Importance of Receptors

- 3.5.12 Receptors are defined as the physical resource or user group that would be affected by a proposed development. The baseline studies will identify potential environmental receptors for each topic. The sensitivity or importance of a receptor may depend, for example, on its frequency or extent of occurrence at an international, national, regional or local level.
- 3.5.13 Sensitivity will be defined within each ES topic chapter, where appropriate, and will take into account factors including:
- the value/importance of the receptor (for example, in terms of ecological, social/community and/or economic value as defined in CIEEM, 2019);
 - the vulnerability of the receptor, which can be defined as the degree to which a receptor is susceptible to injury, damage, or harm from an activity (IPCC, 2007);
 - the recoverability or potential for substitution of the receptor (this can include, for example, the ability of a habitat, community or individual to redress or recover from damage sustained as a result of an external factor (MarLIN, 2020).
- 3.5.14 Sensitivity will generally be described using the following scale:
- high;
 - medium;
 - low; and
 - negligible.
- 3.5.15 In some cases, in accordance with topic-specific methodologies, a further category of very high may be used (for example, for features subject to international designations).
- 3.5.16 As a general rule, the above receptor sensitivity levels will be defined as set out in **Table 3.2**.

Table 3.2: Definitions of Receptor Sensitivity

Sensitivity Level	Typical Descriptor
Very high	Very high importance and rarity, international scale, and very limited potential for substitution. This may include receptors with a very high level of vulnerability.
High	High importance and rarity, national scale, and limited potential for substitution. This may include receptors with a high level of vulnerability.
Medium	High or medium importance and rarity, regional scale, limited potential for substitution. This may include receptors with a medium level of vulnerability.
Low	Low or medium importance and rarity, local scale. This may include receptors with a low level of vulnerability.
Negligible	Very low importance and rarity, local scale. This may include receptors with a very low level of vulnerability.

Descriptions based on DMRB LA104 (Highways England et al., 2020)

Magnitude of Impact

- 3.5.17 Impacts are defined as a change caused by an action i.e. the physical changes to the environment attributable to the Proposed Development. For each topic, the likely environmental impacts will be identified and compared with the baseline (the situation without the Proposed Development). Impacts will be divided into those occurring during the construction, operation and maintenance and decommissioning phases. The magnitude of the impact will be described using defined criteria within each topic chapter.
- 3.5.18 The categorisation of the impact magnitude may take into account the following four factors:
- extent;
 - duration;
 - frequency; and
 - reversibility.
- 3.5.19 Impacts will be defined as either adverse or beneficial. Depending on discipline, they may also be described as:
- permanent: impacts that result in a permanent or irreversible impact (such as a loss of habitat or land use that will not be restored following construction);
 - temporary: impacts that are of a defined duration, such as impacts that will occur in one phase and will then be reversed (e.g. habitat loss or land use change occurring during construction where that land will be restored at the end of the construction phase);
 - direct: arise from activities associated with the Project. These tend to be either spatially or temporally concurrent; or
 - indirect: impacts on the environment which are not a direct result of the Proposed Development, often produced away from the site or as a result of a complex pathway.
- 3.5.20 Unless otherwise defined within topic chapters of this ES, the following descriptions will be used to describe the duration of impact:
- short term: a period of months, up to one year;
 - medium term: a period of more than one year, up to five years; and
 - long term: a period of greater than five years.
- 3.5.21 Impacts will be divided into those occurring during the construction, operation and maintenance or decommissioning phases.
- 3.5.22 The magnitude of an impact will generally be defined used the following scale:
- high;
 - medium;
 - low; and
 - negligible.
- 3.5.23 In some cases, a further category of 'no change' may be used (where no adverse or beneficial impact is predicted for a specific receptor or part of the Proposed Development).
- 3.5.24 As a general rule, the magnitude of impact levels will be defined as set out in **Table 3.3**.

Table 3.3: Definitions of Magnitude of Impact

Magnitude Level	Typical Descriptor
High	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements (adverse).
	Large scale or major improvement of resource quality; extensive restoration or enhancement; major improvement of attribute quality (beneficial).
Medium	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements (adverse).
	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality (beneficial).
Low	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements (adverse).
	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring (beneficial).
Negligible	Very minor loss or detrimental alteration to one or more characteristics, features or elements (adverse).
	Very minor benefit to or positive addition of one or more characteristics, features or elements (beneficial).
No change	No loss or alteration of characteristics, features or elements; no observable impact in either direction.

Descriptions based on DMRB LA104 (Highways England et al., 2020)

Evaluation of Significance of Effects

- 3.5.25 Effect is the term used to express the consequence of an impact (expressed as the 'significance of effect'), which is determined by correlating the magnitude of the impact to the sensitivity of the receptor or resource.
- 3.5.26 The magnitude of an impact does not directly translate into significance of effect. For example, a significant effect may arise as a result of a relatively modest impact on a resource of national value, or a large impact on a resource of local value. In broad terms, therefore, the significance of the effect can depend on both the impact magnitude and the sensitivity or importance of the receptor.
- 3.5.27 Significance levels are defined separately for each topic. Unless separately defined in the topic chapters, the assessments take into account relevant topic specific guidance, based on the following scale and guidance.
- Substantial: Only adverse effects are normally assigned this level of significance. They represent key factors in the decision-making process with regard to planning consent. These effects are generally, but not exclusively, associated with sites or features of international, national or regional importance that are likely to suffer the most damaging impact and loss of resource integrity.
 - Major: These beneficial or adverse effects are considered to be very important considerations and are likely to be material in the decision-making process.
 - Moderate: These beneficial or adverse effects may be important, but are not likely to be key decision-making factors. The cumulative effects of such factors may influence

decision making if they lead to an increase in the overall adverse effect on a particular resource or receptor.

- Minor: These beneficial or adverse effects may be raised as local factors. They are unlikely to be critical in the decision-making process, but are important in enhancing the subsequent design of the Proposed Development.
- Negligible: No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

3.5.28 The terms minor, moderate, major and substantial apply to either beneficial or adverse effects.

3.5.29 These significance levels will be defined separately for each topic within the methodology sections. In all cases, the judgement made as to significance will be that of the author of the relevant chapter with reference to appropriate standards/guidelines where relevant. Unless set out otherwise within the ES chapter, topic chapters will use the general approach set out in **Table 3.4**.

Table 3.4: Typical Assessment Matrix

Sensitivity	Magnitude of Impact				
	No Change	Negligible	Low	Medium	High
Negligible	No change	Negligible	Negligible or Minor	Negligible or Minor	Minor
Low	No change	Negligible or Minor	Negligible or Minor	Minor	Minor or Moderate
Medium	No change	Negligible or Minor	Minor	Moderate	Moderate or Major
High	No change	Minor	Minor or Moderate	Moderate or Major	Major or Substantial
Very high	No change	Minor	Moderate or Major	Major or Substantial	Substantial

3.5.30 Professional judgement will be used to define the magnitude of impact and receptor sensitivity. The matrix will then be used, together with professional judgement, to evaluate the significance of effect. Where more than one option is available in the significance matrix, the significance of effect will be determined by the author using professional judgement. In general, a significance of effect of moderate or greater is considered 'significant'. For each topic chapter within the ES, what is considered 'significant' will be clearly defined.

Further (Secondary) Mitigation

3.5.31 Where the findings of initial assessments with embedded mitigation measures in place indicate that effects may still be significant, consideration will be given to ways in which the effect may be able to be reduced. Where required, further (secondary) mitigation measures will be identified within topic chapters. These are measures that could further prevent, reduce and, where possible, offset any adverse effects on the environment.

Assessment of Residual Effects

3.5.32 Where further mitigation measures are identified, an evaluation of the residual impacts and effects will be undertaken, using the same criteria for defining impact magnitude and significance of effect as described above.

Enhancement

- 3.5.33 In some cases, the measures identified through the iterative EIA process or through stakeholder consultation may result in enhancement of environmental conditions. Any such measures proposed by the Applicant will be reported in the ES.

Monitoring

- 3.5.34 Monitoring commitments may be put in place, as necessary, to assess the effectiveness of mitigation measures and validate assessment conclusions. Any such measures proposed by the Applicant will be reported in the ES.

Summary Tables

- 3.5.35 Summary tables will be used to summarise the effects of the Proposed Development for each environmental topic.

3.6 Cumulative Effects

- 3.6.1 The EIA Regulations require consideration of cumulative effects, which are effects on a receptor that may arise when the Proposed Development is considered together with other proposed developments in the area.
- 3.6.2 The cumulative effects of the Proposed Development in conjunction with other proposed schemes will be considered. Other developments considered within the cumulative assessment will include those that are:
- under construction;
 - permitted, but not yet implemented;
 - submitted, but not yet determined; and
 - identified in the Development Plan (and emerging Development Plans - with appropriate weight being given as they move closer to adoption) recognising that much information on any relevant proposals will be limited.
- 3.6.3 It is noted that developments that are built and operational at the time of submission are considered to be part of the existing baseline conditions.
- 3.6.4 A list of proposed developments and planning policy allocations to be included within the cumulative assessment is provided in Appendix A: Cumulative Developments.

3.7 Assessment of Inter-Related Effects

- 3.7.1 The EIA Regulations require consideration of the interactions or inter-relationships between EIA topics that may lead to a greater environmental effect in combination with each other than they otherwise would when considered in isolation. This can take the form of different impacts within the same topic through the lifetime of the Proposed Development (construction and operation) and impacts on receptors between different topics.
- 3.7.2 The approach to the assessment of inter-related effects will consider two types of effect:
- Project lifetime effects: Assessment of the scope for effects that occur throughout more than one phase of the Proposed Development (construction, operation and maintenance, and decommissioning), to interact to potentially create a more significant effect on a receptor than if just assessed in isolation in these three phases.

- Receptor led effects: Assessment of the scope for all relevant effects (including inter-relationships between environmental topics) to interact, spatially and temporally, to create inter-related effects on a receptor.

3.7.3 The assessment of inter-related effects will be undertaken with specific reference to the potential for such effects to arise in relation to receptor groups (i.e., the assessment will, in the main, not assess every individual receptor assessed at the EIA stage, but rather, potentially sensitive groups of receptors).

3.7.4 Inter-related effects on each receptor or receptor group will be assessed as follows:

- the topic chapters of the ES will be reviewed to identify receptors or receptor groups which will require assessment, as well as the likely effects on each receptor or receptor group; and
- an assessment will be undertaken into how the combination of individual effects may create inter-related effects on each receptor or receptor group (such as ecosystems) for both project lifetime effects and receptor-led effects. A conclusion will then be determined on likely significant inter-related effects.

3.7.5 If the significance of effects are identified as negligible across all stages of the Proposed Development within the topic-specific assessment, it is assumed that these effects cannot contribute to any significant lifetime inter-related effects. Therefore, these will not be included in the inter-related effects assessment.

3.8 Approach to Consultation and Engagement

Consultation and Engagement to Date

3.8.1 The Applicant has started early engagement with key consultees ahead of the scoping and technical engagement processes, to introduce the Proposed Development to the local community.

3.8.2 A summary of the consultation and engagement undertaken to date is provided below in **Table 3.5** below.

Table 3.5: Summary of Local Community Consultation undertaken / programmed

Date	Summary of Local Community Consultation
May 2026 Introduction to close residents and stakeholders	Introductory letter sent to those living within 500m of the site, and local stakeholders including elected representatives and parish councils to give a high level overview of the emerging draft proposals..
May 2026 Outreach to close residents	Follow up letter sent to residents living close to the site (i.e. adjacent to the red-line) to offer a meeting to discuss the plans.
Start of June 2026 Launch of consultation period	'Consultation Launch' brochure sent to all properties within 2 km radius of the site. All available information published on the project website for review, and fully rendered virtual consultation room hosted with banners and information about the plans. Feedback forms made available online and in hard copy.
Mid June 2026	In-person meetings with people living close to the Site, if people wished to have one.

Date	Summary of Local Community Consultation
Close resident meetings	
Mid June 2026 Webinar	Online Webinar hosted to present an overview of the proposals and answer questions. Questions raised by attendees were answered either 'live' during the webinar or via the project website as a Frequently Asked Question where time did not permit during the webinar.
Beginning of July 2026 Residents Meeting	In person Residents Meeting held at Stambourne Village Hall with members of the project team presenting the project and answering questions.
Mid July Toppesfield Parish Council Meeting	Meeting with Toppesfield Parish Council to explain the proposals and answer questions about the project.
Early August Drop-in information event	A drop-in information event is programmed for 5 August 2026 at Stambourne Village Hall. This is being advertised by letter drop to those living within 2km of the Site and, in addition, along the proposed construction traffic route.

3.8.3 The Applicant's consultation and engagement to date has also included the submission of an EIA Screening Request to Braintree District Council, and subsequent receipt of screening responses from the general public and the following local planning and community consultees:

- Essex County Council;
- Braintree District Council;
- Place Services on behalf of the Essex County Council;
- Environment Agency;
- Finchingfield Parish Council;
- ECC Highways;
- National Highways;
- Natural England;
- Stambourne Parish Council;
- Toppesfield Parish Council;
- Sport England;
- Colchester Natural History Society;
- Essex Bridleways Association

3.8.4 The Applicant has also undertaken pre-application engagement with the Braintree District Council Planning Team, Essex County Council Archaeological, Highways and Public Rights of Way Officers and the British Horse Society. Other stakeholder organisations have been approached and the Applicant continues to engage and inform its scheme design from the ongoing feedback.

4 Proposed Scope of Assessment

4.1 Introduction

- 4.1.1 This section of the EIA Scoping Report identifies the proposed scope of the assessment for the Proposed Development.
- 4.1.2 **Table 4.1** identifies the chapters that are proposed for inclusion in the ES. Further details of the approach to the assessment and its scope are provided in the following sections.

Table 4.1: Structure of the ES

Structure of the ES	
Non-Technical Summary	
Volume 1: Main Text	
Chapter 1	Introduction – this chapter will provide the introduction to the ES, including details of the application, need for EIA and structure of the ES.
Chapter 2	Project Description – this chapter will provide the description of the Project, which will form the basis of the assessment of effects, in accordance with the EIA Regulations.
Chapter 3	Need and Alternatives Considered – this chapter will summarise the reasons for the selection of the site and provide an outline of the alternatives considered during the EIA process, including a description of the alternative design and layout options that have been considered.
Chapter 4	Approach to EIA – details of the overall approach to EIA will be set out in this chapter, together with details of the scoping process, consultation undertaken and the overall approach to the assessment of significance.
Chapter 5	Landscape and Visual Effects – further information provided in section 4.2 below.
Chapter 6	Ecology and Nature Conservation – further information provided in section 4.3 below.
Chapter 7	Historic Environment – further information provided in section 4.4 below.
Chapter 8	Agriculture– further information provided in section 4.5 below.
Volume 2: Figures	
Including all figures and drawings to accompany the main text (volume 1).	
Volume 3: Appendices	
Including specialist reports forming technical appendices to the main text (volume 1).	

4.2 Landscape and Visual Effects – ES Chapter

Introduction

- 4.2.1 This section of the EIA Scoping Report sets out the proposed scope and methodology for the assessment of effects on landscape and visual amenity.
- 4.2.2 Landscape and / or visual effects, associated with a solar farm development, are an important environmental issue. As such, a Landscape and Visual Impact Assessment (LVIA) would form an important part of the wider EIA process for the project.
- 4.2.3 Chapter 5: Landscape and Visual Impact Assessment, of the ES would consider the potential effects of the Proposed Development upon the physical landscape elements and features, landscape character, views and visual amenity within the 3 km radius study area, as measured in all directions from the edge of the Site (red line) boundary.

- 4.2.4 The LVIA would be undertaken with reference to best practice guidance, as summarised within the ‘Assessment Methodology’ section below (from paragraph 4.2.49) and detailed within Appendix B: Landscape and Visual Impact Assessment Methodology. The LVIA would be completed by a suitably qualified and experienced Chartered Landscape Architect (CMLI).

Legislation, Policy and Guidance

- 4.2.5 Relevant planning policies within the currently adopted Braintree District Council Local Plan 2033 (adopted July 2022) would be reviewed and considered as part of the LVIA.

Proposed Study Area for Assessment

- 4.2.6 The proposed landscape and visual study area will extend to 3 km from the Site boundary, in all directions. This has been determined through the production of a preliminary zone of theoretical visibility (ZTV), shown at **Figures B1 and B2 in Appendix B**, which indicates that areas of higher visibility would generally be limited to within this distance. Preliminary ZTV mapping including both “with barriers” and “bare earth” scenarios have been produced as part of the Preliminary LVIA and will be refined to account for any changes to the Proposed Development layout as required. The ZTV(s) will inform the identification of relevant landscape receptors and viewpoints to be assessed as part of the ES Chapter.
- 4.2.7 It is a common LVIA practice that the extent of the study area for a development proposal is broadly defined by the visual envelope of the site and the anticipated extent of visibility arising from the Project itself, based on the ZTV study and through field survey verifications of the ZTV, as the latter does not take account of the effects of distance.

Baseline Environment

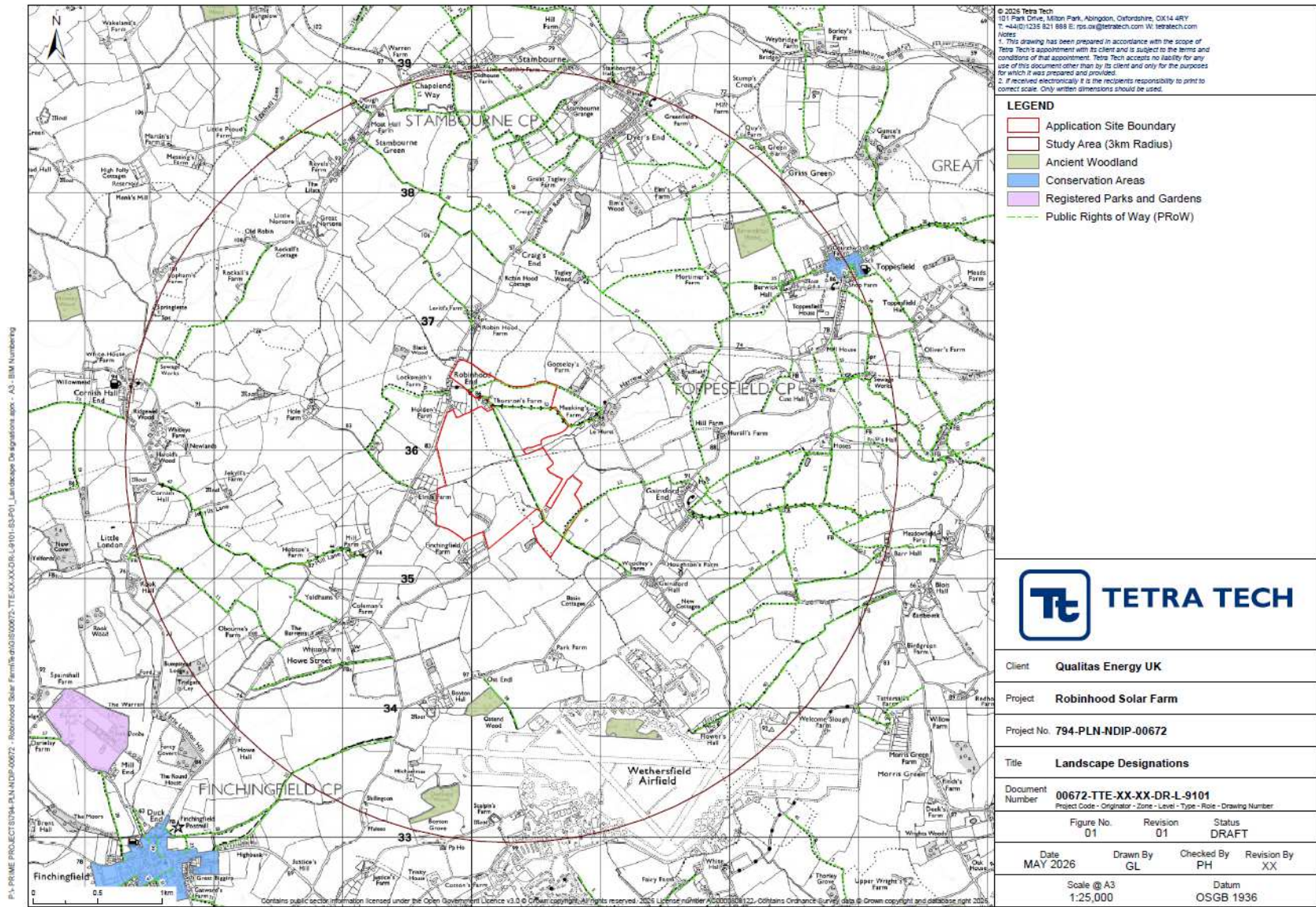
- 4.2.8 An outline of the baseline environment for landscape and visual effects is provided below.

Site Context

- 4.2.9 The Site is in agricultural use with mature hedgerows and trees along the boundaries. The Site is currently accessed from Finchingfield Road via existing farm access and it is anticipated that a new access will be provided directly onto Finchingfield Road.
- 4.2.10 An application for prior approval has previously been made for development on a small part of the Site under reference 19/01139/AGR - Application for prior notification of agricultural or forestry development - erection of portal frame steel barn and new road access. This was determined as ‘permission not required’ on 30.07.2019.
- 4.2.11 The Site is surrounded by a number of rural settlements, Finchingfield being the closest, approximately 3.2km to the southwest. The area is rural in character, as the Site is surrounded by agricultural land, rural settlements and rural businesses. The Site is approximately 19km away from Stansted Airport and approximately 22km from the M11 (straight line distance).
- 4.2.12 In addition to the 132kV overhead line which passes over the Site there is a 400kV line which passes approximately 100m to the north, at its nearest point. These lines both influence the surrounding area in terms of providing a landscape which includes established electricity infrastructure.
- 4.2.13 The Site is not located within or near any landscape designations of national or local importance, such as National Landscapes. The nearest is Dedham Vale National Landscape, approximately 20km to the east.

- 4.2.14 There are four PRowWs which pass through or near to the Site. Including Bridleway 10 which passes north to south through the approximate centre of the Site. Byway 52 and Footpath 7, which traverse east to west within the northernmost parts of the Site and Footpath 12 which travels east-west at the southern part of the site. There are also several other PRowWs within the wider landscape.
- 4.2.15 Preliminary ZTV studies indicate that visibility is largely contained by existing vegetation, with higher intervisibility generally limited to areas within approximately 2 km of the Site.
- 4.2.16 The principal visual receptors identified to date include users of PRowW crossing or adjoining the Site, road users on Finchingfield Road to the west, and nearby properties, including Thurston's Farm, Holden's Farm, Imber, Fenton's Farm, Gooseley's Farm, Meeking's Farm, Le Hurst, Haydown, Thurston's Cottage, Hill Farm, Gainsford End and Finchingfield Farm.
- 4.2.17 The Site location in relation to the landscape designations in the area is pictured below in **Figure 6**.

Figure 6: Site location and landscape planning designations



Landscape Planning Designations

- 4.2.18 The Proposed Development is not located within a National Park or National Landscape (Area of Outstanding Natural Beauty, AONB), i.e. an area designation of national importance for its scenic quality (refer to **Figure 6**).
- 4.2.19 Within the wider 3km study area or just beyond this distance, there are a number of other landscape planning related designations that could be indirectly impacted by the Proposed Development. These include:
- Conservation Areas;
 - Ancient Woodlands; and,
 - Registered Parks and Gardens.

National and Local Landscape Character

National Landscape Character

- 4.2.20 At the national level, the Site is located in the approximate centre of the National Character Area (NCA) 86: South Suffolk and North Essex Clayland. The Proposed Development would therefore directly affect a very small part of this NCA.
- 4.2.21 The Site occupies a very small part of NCA 86: South Suffolk and North Essex Clayland. Consequently, there is no potential for the NCA to experience a significant landscape effect.

Local Landscape Character

- 4.2.22 At a local level, the Site is located within a landscape area assessed in the Braintree Landscape character assessment (Chris Blandford Associates, 2006). The assessment identifies 70 distinct landscape areas across the district. The Site falls within B9 Stambourne Farmland Plateau landscape character area (LCA).
- 4.2.23 The Stambourne Farmland Plateau LCA would be directly affected by the Proposed Development. The key characteristics of the LCA which are of relevance are as follows:
- Relatively open gently undulating arable land.
 - Predominantly agricultural land bounded by species rich hedgerows with trees and ditches.
 - Narrow country lanes bounded by grass verges and ditches dissect the fields.
 - Lines of pylons dissect the open landscape.
 - Wethersfield Airfield dominates the views in the south-eastern area.
- 4.2.24 The key visual characteristics of the LCA are identified as follows:
- The church towers of Stambourne, Toppesfield and Finchingfield are landmarks within the views towards the villages.
 - Generally open views across the arable fields which are framed in places by small patches of woodland and the hedges with trees.
- 4.2.25 There is no specific guidance provided in the Braintree Landscape character assessment related to renewable energy developments and it is not cited within the 'sensitivities to change'. However, guidance is provided on landscape strategy objectives which are of relevance, as follows:

- **Conserve** - seek to protect and enhance positive features that are essential in contributing to local distinctiveness and sense of place through effective planning and positive land management measures.
- **Enhance** - seek to improve the integrity of the landscape, and reinforce its character, by introducing new and/or enhanced elements where distinctive features or characteristics are absent.

Visual Resources

- 4.2.26 Preliminary ZTVs have been produced using OS Terrain 5 data, refer to figures 00672-TTE-XX-XX-DR-L-9102 (with barriers) and 9103 (bare earth). They have been produced based on a maximum solar panel height of 3m above existing ground level (EGL) and on the basis of a wider site coverage of solar panels in fields 5 to 17 than is featured in the current design (see **Figure 7**), thereby representing a worst-case scenario (**Appendix B, Figure B1 and B2**).
- 4.2.27 There are limited larger blocks of woodland vegetation in the local landscape. However, there are several roadside or field boundary hedgerows and existing vegetation within the Site which contribute to the visual screening of it. The with barriers ZTV, 00672-TTE-XX-XX-DR-L-9102 (Appendix B), has been produced using OS Terrain 5 and Lidar data. The ZTV indicates possible areas of higher intervisibility to areas in proximity to or within the Site and small areas to the north and east. Areas of higher visibility are generally limited to within approximately 2km of the Site, including around Hill Farm to the east, Finchingfield Farm to the south and Gooseley's Farm to the north. Potential intervisibility beyond this becomes increasingly fragmented with the local landform resulting in the extent of this intervisibility being varied. The bare earth ZTV, 00672-TTE-XX-XX-DR-L-9103 (Appendix B), indicates broadly the same extent of possible intervisibility to the north, east and southeast, with areas of potentially higher visibility in those areas.
- 4.2.28 There is no potential intervisibility within large parts of the 3km study area. Including areas to the southwest, around Howe Street, and areas to the south / southeast and north beyond approximately 2km from the Site.

Visual Receptor Groups

- 4.2.29 The susceptibility of different visual receptors to changes in views and visual amenity is mainly a function of:
- the occupation or activity of people experiencing the view at particular locations; and
 - the extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations.
- 4.2.30 The visual receptors most susceptible to change to the Proposed Development are likely to include people, whether residents or visitors, who are engaged in outdoor recreation, including use of Public Rights of Way, whose attention or interest is likely to be focused on the landscape and on particular views. Public Rights of Way users are considered to be of High sensitivity to any change.
- 4.2.31 Travellers on road, rail or other transport routes tend to fall into an intermediate category of low (vehicle users) to moderate (cyclists and walkers using roads) susceptibility to change. Where travel involves recognised scenic routes awareness of views is likely to be higher.
- 4.2.32 Visual receptors likely to be less sensitive to change include:
- Road users;
 - people engaged in outdoor sport or recreation which does not involve or depend upon appreciation of views of the landscape; and

- people at their place of work whose attention may be focused on their work or activity, not on their surroundings, and where the setting is not important to the quality of working life (although there may on occasion be cases where views are an important contributor to the setting and to the quality of working life).

- 4.2.33 The visual amenity for road users in the local landscape, including motorists, cyclists, horse riders, and occasional walkers, is primarily limited to Finchingfield Road, which passes generally north to south through Robin Hood End immediately to the west of the Site. The eastern verge to Finchingfield Road has mature hedgerows and trees for much of its length. Potential views of the Proposed Development would therefore be limited for road users. In winter months, at existing field gates and where vegetation is limited or not present, potential intervisibility would be greater. Notwithstanding this, any available views in winter or summer months would be transient and short lived in nature. It is therefore unlikely the Proposed Development would result in significant visual effects for road users of Finchingfield Road, for approximately 630m as it passes along the westernmost Site boundary. Due to the transient and short-lived nature of available views and the perceived Low (vehicle users) to Medium (pedestrians, cyclists and horse riders) sensitivity of road users.
- 4.2.34 There are High sensitivity visual receptors, in the form of PRoW users, in proximity to, or within the Site. PRoW which would be affected most include PRoW (Byway) 52 which traverses east to west from Thurston's Farm to Meeking's Farm; PRoW (footpath) 7 which abuts the northernmost Site boundary, PRoW (Bridleway) 10 which traverses north to south through the approximate centre of the Site and PRoW (Footpath 12) which runs along and at times within the southern boundary of the Site. There are also several other PRoW in the wider landscape which would likely have varying views towards the Proposed Development.
- 4.2.35 Users of those PRoW, which pass through the Site, may experience a significant visual effect because of the Proposed Development. This is due to the proximity of the Proposed Development to the PRoW, likely resulting in a raised magnitude of impact. When combined with the susceptibility of PRoW users and their High sensitivity, this may result in a significant effect at a very local and isolated level from sections of PRoW which pass directly through the Proposed Development. Suitable mitigation would be needed to be put in place to minimise effects for these high sensitivity users.
- 4.2.36 There are also several High sensitivity visual receptors, in the form of local residential properties, which fall within the preliminary ZTV. A more detailed assessment would be required to determine the extent and significance of any intervisibility. However, consideration should be given to this receptor group with appropriate mitigation being included in order to minimise any potential effects. The ZTV, 00672-TTE-XX-XX-DR-L-9102, indicates that many of the local residential properties fall within areas of middle to lower levels of potential intervisibility. Exceptions to this include Thurston's Farm, Holden's Farm, Imber, Fenton's Farm, Gooseley's Farm, Meeking's Farm, Le Hurst, Haydown, Thurston's Cottage, Hill Farm, Gainsford End and Finchingfield Farm. These properties are shown as falling within areas of higher visibility. Further Site work will help to determine the intervisibility.

View Ranges

- 4.2.37 For the purposes of the LVIA Chapter, views would be classified according to three distance 'ranges' as set out in **Table 4.2** below.

Table 4.2: View Ranges

Range	Distance Threshold	Reasoning Description
Close	Less than 1 km	At close range the project could appear as a 'prominent' feature and visual receptors could experience high to medium/low magnitude of change when compared to existing views.
Medium	Between 1 km and 3 km	In medium range views the project could appear as 'present' features and visual receptors could experience medium/low to negligible magnitude of change compared to the existing situation.
Long	More than 3 km	In long range views the project would read as part of the landscape and visual receptors would tend to experience a low to negligible or lower magnitude of change compared to the existing situation.

Candidate Viewpoints

- 4.2.38 A number of Candidate Viewpoints have been proposed, which are considered representative of key sensitive visual receptors within the 3km study area. An assessment of potential effects upon views from each viewpoint, as a result of the Proposed Development, would be completed. These Candidate Viewpoints will be further refined following field work and form the Representative Viewpoints to be assessed as part of the LVIA Chapter.
- 4.2.39 All Candidate Viewpoints are situated at publicly accessible locations within the ZTV, at a range of distances and orientation to the Proposed Development. They include a range of receptors of varying sensitivity. Photographs will be taken from each of the chosen Representative Viewpoints and will be illustrated in accordance with the Landscape Institute (LI) Technical Guidance Note (TGN) 06/19, Visual Representation of Development Proposals (Landscape Institute, September 2019). Any additional photographs taken during field survey and / or requested following Scoping (where appropriate), would be included and / or alternative viewpoint locations selected as necessary, with a detailed description and log of any alternative / additional views selected given within the LVIA.
- 4.2.40 **Table 4.3** below describes the location of the candidate viewpoints for this assessment.
- 4.2.41 Of these Candidate Viewpoints, it is proposed a number will be selected in agreement with the LPA, from which fully rendered photomontages will be produced to illustrate the Proposed Development. Photomontages will be AVR type 3, with the remaining Candidate Viewpoints illustrated to AVR Level 0 to 1. Photowire / wirelines (AVR 0 to 1) and fully rendered photomontages (AVR Level 3) would be produced in accordance with best practice guidance contained within LI TGN 06/19.

Table 4.3: Candidate Viewpoints

No. / Name	Sensitivity	View Location Description
CV 1: Public Right of Way (Bridleway 10)	High	Viewpoint from Public Right of Way (Bridleway 10) which passes north to south through the Site.

No. / Name	Sensitivity	View Location Description
CV 2: Public Right of Way (Footpath 18)	High	Viewpoint from Public Right of Way (Footpath 18) to the north of the Site.
CV 3: Public Right of Way (Footpath 2)	High	Viewpoint from Public Right of Way (Footpath 2) to the southwest of the Site.
CV 4: Finchingfield Road	Low / Medium	Viewpoint from Finchingfield Road to the west of the Site.
CV 5: Public Right of Way (Footpath 7)	High	Viewpoint from Public Right of Way (Footpath 7) at the northern boundary of the Site.
CV 6: Public Right of Way (ByWay 52)	High	Viewpoint from Public Right of Way (ByWay 52) at the northeast corner of the Site.
CV 7: Public Right of Way (Footpath 12)	High	Viewpoint from Public Right of Way (Footpath 12) to the east of the Site.
CV 8: Public Right of Way (Footpath 1)	High	Viewpoint from Public Right of Way (Footpath 1) to the west of the Site.
CV 9: Local road near to Park Farm	Low / Medium	Viewpoint from local road near to Park Farm to the south of the Site.
CV 10: Public Right of Way (Footpath 8)	High	Viewpoint from Public Right of Way (Footpath 8) to the east of the Site.
CV 11: Finchingfield Road	Low / Medium	Viewpoint from Finchingfield Road to the west of the Site.

Proposed Data Sources

Desk Study

4.2.42 The data sources used to inform the baseline assessment will be a combination of published material and site visits by competent experts. An initial desk-study has included the following data sources;

- Any published landscape character assessments (national, regional and local scale);
- Descriptions of international and national designated landscapes, including Cotswold Area of Outstanding Natural Beauty (AONB), publicly accessible Registered Parks and Gardens and where relevant locally designated landscapes such as Special Landscape Areas.
- Ordnance Survey 1:25,000 and rights of way mapping; and
- Aerial photography.

- 4.2.43 In addition, site visits have been undertaken to survey the solar array installation area and cable corridor and surrounding areas to verify the documented landscape and visual baseline and to select and take photographs from the agreed representative viewpoints of the solar array infrastructure.
- 4.2.44 The baseline data sources identified in this Scoping Report will remain under review and may be updated in respect of feedback from relevant statutory and non-statutory consultees during the LVIA process, or in response to new sources of information becoming available.

Embedded Mitigation Measures

- 4.2.45 The following designed-in measures are relevant to landscape and visual resources and receptors. The designed-in measures will evolve over the development process as the EIA progresses.
- 4.2.46 A key designed-in mitigation would be the siting of the solar array installation areas. This will include avoidance of important landscape features and visual receptors where practicable, including existing hedgerows and trees.
- 4.2.47 As part of the design process for the solar farm, designed-in measures are proposed to avoid or reduce landscape and visual impacts on sensitive resources and receptors. Designed-in measures relevant to landscape and visual resources and receptors have already taken into account identification and assessment of landscape and visual receptors and key mitigations within the current layout are described below. Changes to these, or additional mitigations may be included in the final design which is submitted for planning approval based on continuing discussions with consultees and the general public.
- 4.2.48 A draft approach to landscaping has been developed. The proposed landscaping arising from this is set out on The Draft Indicative Layout, Landscape and Ecology Plan, which is provided at **Figure 7**. This will be refined as the assessment work progresses.
- 4.2.49 The landscaping approach prepared to date includes extensive new planting in several locations within the site. These include:
- hedgerow to screen views of the edge of the proposed development from properties to the north and north east. These are combined with new trees and native woodland structural planting to filter the longer distance views of the Proposed Development from properties to the north and north east of Field 6.
 - hedgerow to screen the edge of the proposed development from properties to the east of Fields 8, 14 and 15. Two properties to the east of the Site are listed buildings (Le Hurst and Meekings Farm) and this screening is also referred to in the embedded mitigation section of the heritage section of this report.
 - Public Rights of Way have been carefully considered. The layout of the Proposed Development leaves wide areas around existing Public Rights of Way and the landscape approach provides a mixture of hedgerow and scattered trees to screen / filter views. The objective of the approach is to provide attractive areas through which the Public Rights of Way pass.
 - The provision of native scattered trees and native structural woodland planting in various locations within the Site, helping to filter views of the Proposed Development whilst creating a biodiversity uplift.
 - Reinforcing existing hedgerows where there may be gaps in these, and allowing them to grow taller in places to help further screen the Proposed Development.
 - Planting of species rich grassland within the solar array areas which are proposed to be managed using low intensity sheep grazing.

- Planting meadow grassland species in field edges around the proposed deer fencing and in field 5 – where fields have existing grass, this will be retained.

4.2.50 In addition to the above proposed landscape planting, the scheme has been designed to minimise hedgerow loss, only including this where necessary for access tracks. The current layout also safeguards existing trees on the site by providing suitable buffers around their root protection areas or by using sensitive construction methods.

4.2.51 Further to the above landscaping measures, an oCEMP will also be prepared and submitted with the planning application, including reinstatement of any temporary construction works areas. This will also include restrictions on temporary lighting for the construction period (no lighting is proposed during the operation of the Proposed Development).

Proposed Scope of the Assessment

Potential Effects

4.2.52 A range of potential impacts on landscape and visual resources have been identified which may occur during the construction, operation and maintenance, and decommissioning phases of the Project.

4.2.53 The assessment will consider two key areas:

- Landscape character (features, elements and characteristics): A review of the character of the Site and its surroundings will be undertaken with reference to published landscape assessment documents and field survey, as well as individual landscape features and elements.
- Visual receptors: taking into account the findings of the site visits and field appraisal, a range of viewpoint locations, that are considered representative of views towards the solar arrays from areas identified on the ZTV will be identified and agreed with the relevant statutory consultees. Photography from the agreed representative viewpoints will be undertaken.

4.2.54 The impacts that have been scoped into the assessment are outlined in Table 4.4 together with a description of any additional data collection (e.g. site-specific surveys) and supporting analyses that will be required to enable a full assessment of the impacts.

Figure 7. Draft Indicative Layout, Landscaping and Ecology Plan

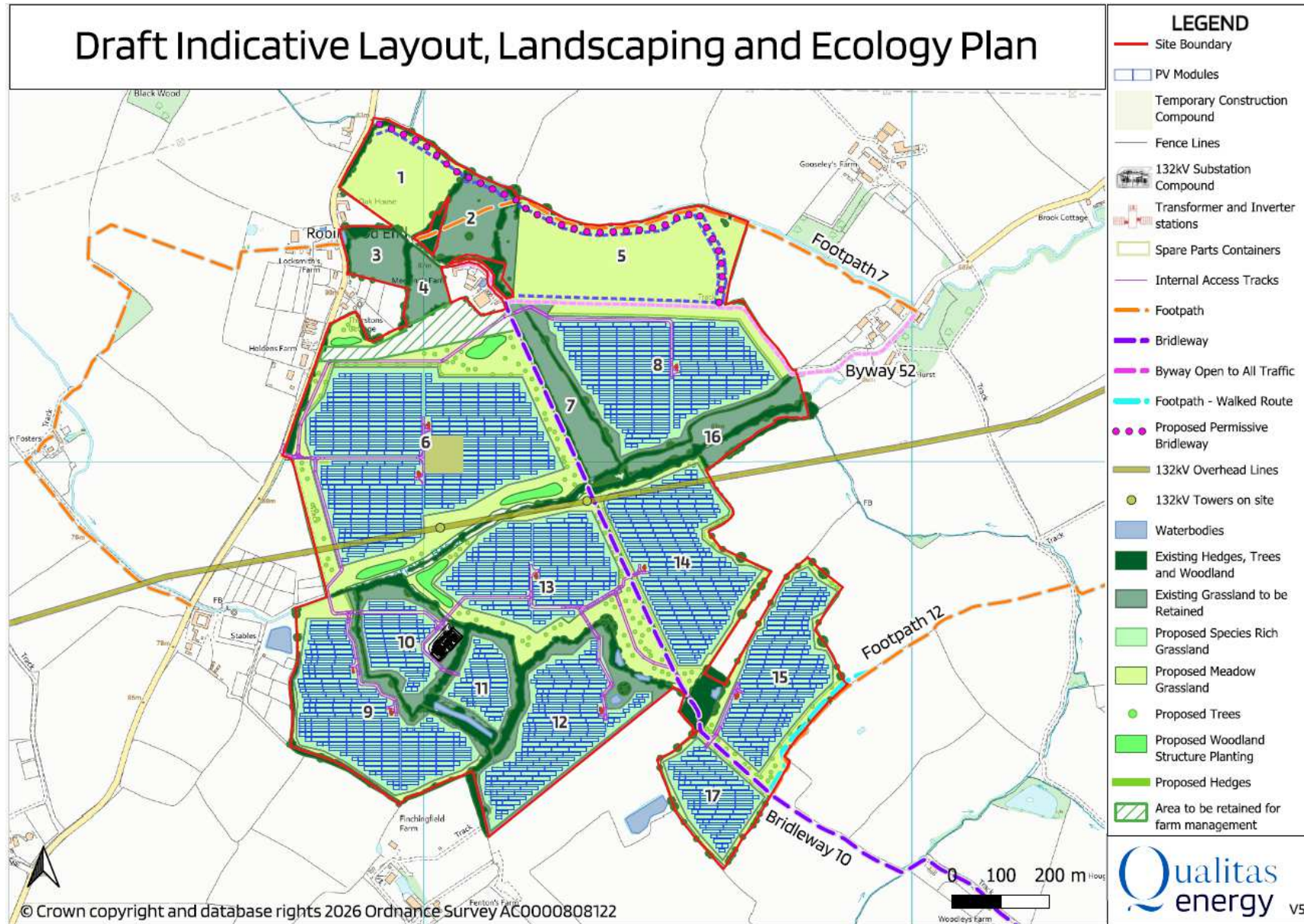


Table 4.4: Impacts Proposed to be Scoped into the Assessment for Landscape and Visual Effects

Impact	Project phase			Justification	Data collection and analysis required to characterise the baseline environment	Summary of proposed approach to assessment
	C	O	D			
Potentially significant change in character (to landscape designations / types / areas) as a result of solar farm.	✓	✓	✓	The construction of the Robin Hood Solar Farm could cause direct impacts upon landscape character.	Desktop analysis of landscape character with notes and contextual photography, confirmed and refined during site visits.	ZTV production will show where the Proposed Development may influence landscape character, including any character areas that they are not located within.
Potentially significant effects on publicly accessible views as a result of solar farm.	✓	✓	✓	The construction of the Robin Hood Solar Farm could be visible to visual receptors, including: • residents • people using Public Rights of Way and Access Land • commercial receptors (e.g. users of roads and railways) • hobby-based receptors engaged in recreational pursuits other than using Public Rights of Way (e.g. people playing golf) • people at their place of work.	Desktop analysis of mapping with notes confirmed and refined during field work and photography.	ZTV production will show where the Proposed Development has the potential to be visible from. Representative viewpoints from publicly accessible locations would be agreed with statutory consultees and views from those locations assessed, as well as assessing more general views available by receptor groups. Where appropriate photomontages will be produced to illustrate the proposed Solar Farm.

Proposed Assessment Methodology

- 4.2.55 The Landscape and Visual Impact Assessment (LVIA), undertaken as part of the Landscape and Visual Resources chapter, will identify and assess the likely significant effects that would arise as a result of the Proposed Development on the landscape (its fabric, character and elements) and upon views as experienced by receptors (people). The full methodology for the LVIA can be viewed within **Appendix B: Landscape and Visual Impact Assessment Methodology**. Please note this is written in the present tense as it will be included within the LVIA Chapter.
- 4.2.56 The LVIA will be based on the current published guidelines for landscape and visual assessment provided in:
- Guidelines for Landscape and Visual Impact Assessment: Third Edition (GLVIA) (Landscape Institute and Institute of Environmental Management & Assessment, 2013);
 - Landscape Institute Technical Guidance Note (TGN) 2024-01 Notes and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment Third Edition (GLVIA3) (August 2024);
 - Landscape Institute TGN 02/21: Assessing Landscape Value Outside National Designations (May 2021); and,
 - Landscape Institute TGN 06/19, Visual Representation of Development Proposals (Landscape Institute, September 2019).
- 4.2.57 The sensitivity of landscape and visual receptors within the 3 km study area would be assessed (through the identification of the landscape resource's susceptibility to the proposed development/susceptibility of the visual receptor to change and value of the landscape resource/view), together with the predicted magnitude of impact on that receptor (through identification of the proposed development's size/scale, geographical extent and the duration and reversibility of effect). When combining sensitivity with magnitude of impact, a judgement will be made as to the significance of effect upon the landscape resource and/or view during the construction phase, the operational and maintenance phase, as well as the decommissioning phase of the proposed development.
- 4.2.58 Where appropriate, mitigation measures will be identified to avoid, where possible, or reduce any potential landscape and / or visual effects as a result of the proposed development.

Potential cumulative impacts

- 4.2.59 The LVIA Chapter would include an assessment of cumulative effects of the Proposed Development in association with other proposed developments within the study area during its construction, operation and decommission phases.
- 4.2.60 In accordance with GLVIA3, the types of cumulative effect that would be considered include:
- Effects of extension to an existing development;
 - Filling an area with the same development or different types of development over time;
 - Interactions between different types of development;
 - Incremental change as a result of successive individual development;

- Temporal effects;
- Indirect effects of development such as enabling other development; and
- Future actions that remove elements which may have consequences for other existing or proposed development.

- 4.2.61 Any construction, operation and maintenance or decommissioning activities of the Proposed Development that coincide with the landscape and visual resources study area of any phases of Proposed Development (e.g. large infrastructure developments, large residential developments, large areas of commercial development, pipeline or cable routes) would be considered in the cumulative effects assessment.
- 4.2.62 Cumulative projects would include those with planning permission but yet to be constructed or within the planning system. It would not include developments already constructed and operational. These existing developments would be considered as part of the existing baseline to the assessment. The proposed list of cumulative developments is set out in **Appendix A**.
- 4.2.63 For the assessment of the operational phase, the LVIA would include an assessment of its likely effects during daytime only, at winter year 1, when all construction and mitigation planting is assumed complete, and during summer year 15 once all mitigation planting is assumed to have reached its design and screening function.

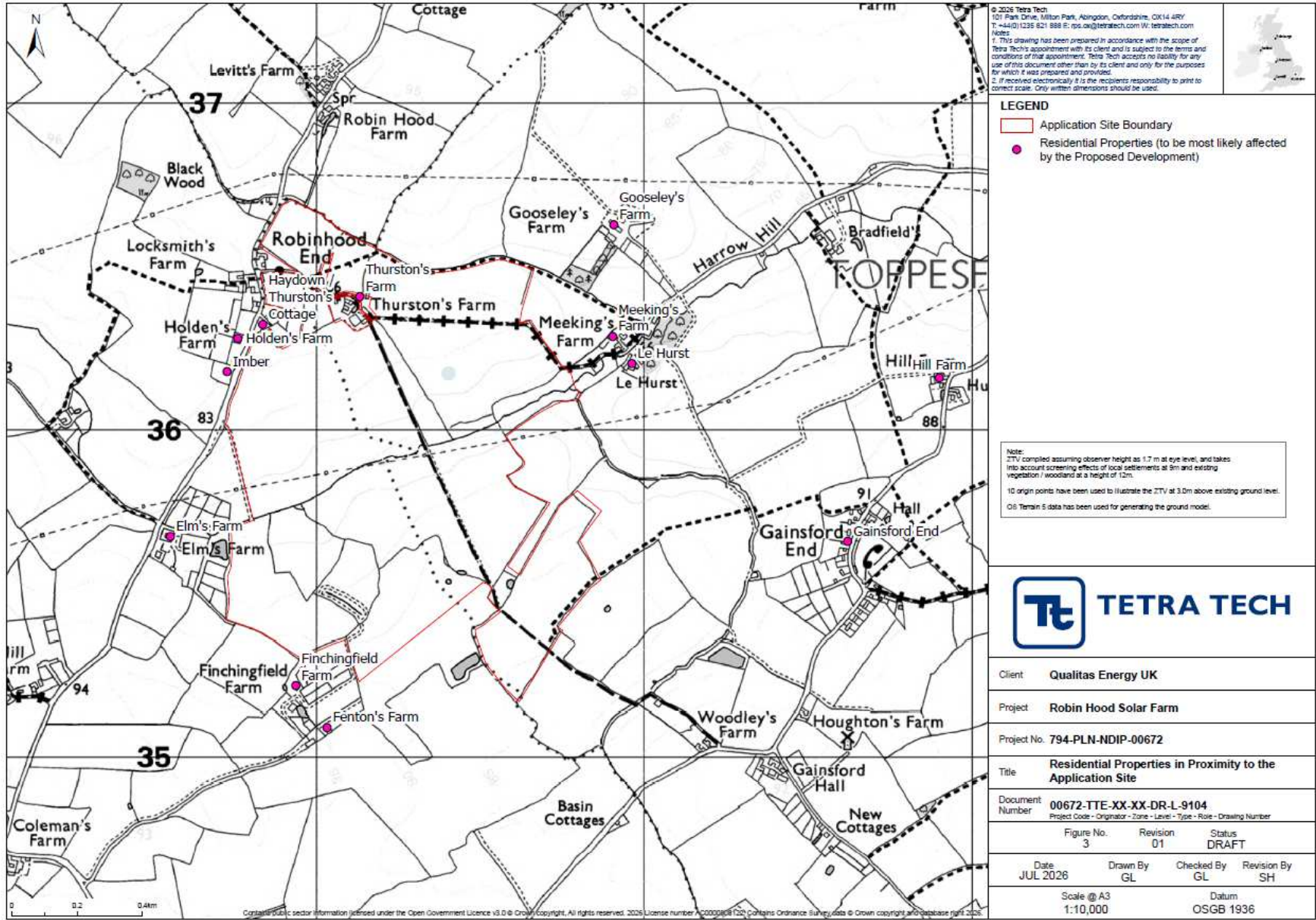
Inter-related Effects

- 4.2.64 The Cumulative Effects Assessment (CEA) for landscape and visual effects will follow the general methodology set out in **section 3.6** of this EIA Scoping Report. The landscape and visual effects chapter of the ES will also consider inter-related effects arising from the Proposed Development, including potential project lifetime and receptor-led effects. This assessment will be undertaken in accordance with the standard industry guidance and approach, as outlined in **section 3.7** of this EIA Scoping Report.

Issues proposed to be scoped out

- 4.2.65 We do not propose to undertake a Residential Visual Amenity Assessment (RVAA) or an assessment of likely night-time effects as there would be no permanent lighting associated with the Robin Hood Solar Farm.
- 4.2.66 Views to the Proposed Development would be available from Haydown, a residential property to the northwest likely to be most affected by it. Views available would be from first floor windows, looking south, with more oblique views to the southeast when close to the windows. Views would also be available from a small part of the equestrian paddocks / exercise yard to the rear of the property, looking southwest. There would be no views available from the rear garden or ground floor of this property due to extensive garden vegetation. The main rear aspect of the property is to the south, to a part of the Site where no solar arrays are proposed.
- 4.2.67 At a distance of approximately 100m, it is judged that the Proposed Development would not affect the living conditions or visual amenity / outlook of Haydown to such an extent that views to the Proposed Development would be so unpleasant, overwhelming and / or oppressive that Haydown would become an unattractive place to live, which would trigger the need for a separate RVAA to supplement the findings of the LVIA. **Figure 8** shows the location of residential receptors in respect of the Site.

Figure 8: Location of residential receptors



- 4.2.68 Other residential properties that would be potentially affected by the Proposed Development, to a lesser extent than Haydown, include Finchingfield Farm, Meeking's Farm, Le Hurst, Fenton's Farm, Holden's Farm, Imber, Thurston's Farm, Thurston's Cottage and Gooseley's Farm.
- 4.2.69 Whilst there may be a potential impact to these properties as a result of the Proposed Development, potential views from these residential properties would be variously limited due to intervening vegetation and landform. It is therefore proposed that effects from them would be assessed as part of the LVIA which is a common approach, established by Landscape Institute guidance: *"LVIA findings of significant (adverse) effects on outlook and /or on visual amenity at a residential property do not automatically imply the need for a RVAA."* (LI TGN 02/19 RVAA).

4.3 Ecology and Nature Conservation – ES Chapter

Introduction

- 4.3.1 This section of the EIA Scoping Report sets out the proposed scope and methodology for the assessment of effects on ecology and nature conservation, it includes a brief summary of specific legislation, policy and guidance, the ecological baseline of the Site and wider Study Area, describes surveys undertaken to date and surveys planned, and the proposed assessment methodology relevant to ecology and nature conservation to fully inform the ES. Matters that are proposed to be scoped in and out of the assessment are identified.

Proposed Study Area for Assessment

- 4.3.2 The current guidance on ecological impact assessments (EcIA) (CIEEM, 2018) recommends that all ecological features that occur within a 'zone of influence' (Zol) for Proposed Development are investigated. The Zol includes:
- Areas directly within the land take for the Proposed Development and access;
 - Areas which will be temporarily affected during construction and decommissioning;
 - Areas likely to be impacted by hydrological disruption; and
 - Areas where there is a risk of pollution and noise disturbance during construction and/or operation.
- 4.3.3 The Zol is variable depending on the ecological features affected. The size of study areas are determined by considering the potential Zol for each feature. The following parameters have been applied when considering Zol's:
- Statutory designated sites for nature conservation, within 5km of the Site, extending to 20km for internationally protected sites with mobile qualifying species;
 - Non-statutory designated sites for nature conservation within 2km of the Site;
 - Habitats of Principal Importance (HPI) and irreplaceable habitats within 50m of the Site;
 - Protected and Priority Species records within 2km of the Site;
 - Breeding bird surveys within up to 100m from the Site;
 - Barn owl presence/likely absence within the Site and a 175m radius where suitable habitat was identified;

- Ground Level Trees Assessments (GLTA) for roosting bats; targeted on areas tree removals/works and a 5m radius, within the Site;
- Great Crested Newt (GCN) – Habitat Suitability Index (HSI) and environmental (eDNA) survey within the Site and a 250 m radius, where suitable habitat was accessible;
- Otter within the Site and a 200m radius, where suitable habitat was accessible; and,
- Water vole within the Site, where suitable habitat was accessible.

Preliminary Ecology Baseline

- 4.3.4 This section describes the baseline ecological conditions established through desk study and field surveys undertaken at the time of writing. Baseline information in relation to ecological features which may be affected by the Proposed Development has been / will be collected through desk study and ongoing ecological field surveys.
- 4.3.5 Full details of baseline studies, field surveys and any consultation will be provided within the ES chapter.

Site-specific Surveys

- 4.3.6 Site-specific surveys have been and are scheduled to be completed, to inform the baseline assessment for ecology and nature conservation.
- Baseline ecological walkover (completed – April 2026);
 - Wintering bird surveys (completed – October 2025 to March 2026);
 - Breeding bird surveys (completed – April to July 2026);
 - Barn owl presence/likely absence survey (completed – June 2026)
 - HSI and eDNA surveys for GCN (completed – April to June 2026)
 - Extended UKHabitat Classification survey (completed – June 2026)
 - GLTA for bats (scheduled for July 2026); and,
 - Otter and water vole surveys (completed – visit one: May 2026 visit two: scheduled for August 2026).
- 4.3.7 The above completed and scheduled surveys are considered proportionate to the Proposed Development, and all baseline evidence gathered will inform the ES.

Designated Sites

- 4.3.8 A desk study was undertaken to identify existing information on the presence of designated sites for ecology and nature conservation.
- 4.3.9 Designated sites within the study area are summarised in **Table 4.5**.

Table 4.5: Designated Sites – Ecology and Nature Conservation

Site	Interest/Reason for Designation
Internationally Designated Sites	
None identified	N/A
Nationally Designated Sites	
None identified	N/A
Locally Designated Sites	

Robin Hood Farm Meadow Local Wildlife Site (LWS)	Species-rich grassland (0 km straight-line distance)
Ostend Wood LWS	Ancient woodland (2.34 km straight-line distance)
Park Wood, Wethersfield Aerodrome LWS	Ancient woodland (2.96 km straight-line distance)
Berwickhall Wood LWS	Ancient woodland (2.4 km straight-line distance)
Outfield Wood / Boyton Grove LWS	Ancient woodland (3.14 km straight-line distance)

Habitats of Principal Importance (HPI) and irreplaceable habitats

- 4.3.10 Records of the following HPI have been returned from within and a 50m radius of the Site:
- Deciduous woodland (within the Site); and,
 - Good quality semi-improved grassland (outside of the Site).
- 4.3.11 No records of irreplaceable habitats have been returned from within 50m of the Site or within the Site.

Habitats

- 4.3.12 The Site predominantly comprises arable fields (wheat with some drilled fields) with narrow grassland borders and hedgerows, the majority of which are species rich. Mature trees were noted to be scattered throughout hedgerows within the Site.
- 4.3.13 Two fields were noted to comprise species-rich tussocky grassland, suitable to provide foraging opportunities for multiple species. One field appeared to comprise amenity grassland.
- 4.3.14 Wet ditches ran throughout the Site; however, some were noted as starting to dry out and therefore likely to only be seasonally wet (transient).
- 4.3.15 There were two brooks on Site, one was recorded as narrow and ran along the northern boundary of the Site (unnamed ordinary watercourse). The second brook (Toppesfield Brook) was wider, bisecting the Site, with varied habitats along the banks.
- 4.3.16 Six ponds were recorded within the Site during the ecological walkover.
- 4.3.17 Ponds, watercourses, hedgerows and arable field margins have the potential to classify as HPI.

Badger

- 4.3.18 No records of badger were returned from the biological record data, from within 2km of the Site within the last 10 years.

Bats

- 4.3.19 No records of bat species were returned from the biological record data, from within 2km of the site, within the last 10 years.
- 4.3.20 Where tree removals/works are required targeted GLTA for roosting bats are proposed in July 2026.
- 4.3.21 Mature trees and structures (barns and farm buildings) which had suitability to support roosting bats, were recorded throughout the Site.
- 4.3.22 Linear features, such as hedgerows and watercourses, within the Site are suitable for foraging and commuting, also providing connectivity to the wider landscape.

Breeding birds

- 4.3.23 58 species of bird were returned from the biological record data, from within 2km of the Site, within the last 10 years.
- 4.3.24 The Site itself offers variable suitability for farmland bird species assemblage; areas of the Site that are heavily disturbed offer negligible suitability (i.e. intensively farmed), while areas of scrub offer more typical habitat for foraging and nesting passerine birds.
- 4.3.25 Evidence of roosting barn owl was recorded within farm buildings adjacent to the Site and within a standalone mature tree situated within the Site.
- 4.3.26 Open grassland areas support ground nesting species such as skylark and yellow wagtail. 14 skylark territories and one yellow wagtail territory have been recorded within the Site during the breeding bird surveys undertaken in 2026.

Wintering birds

- 4.3.27 Wintering bird surveys undertaken in the late winter of 2025 and early winter of 2026 recorded an assemblage of common and widespread species, farmland birds, migrant thrush species and raptors. Many species were birds of conservation concern and several were species of principal importance to biodiversity in England. Fieldfare and redwing (wintering thrush species from Scandinavia) were recorded in relatively large flocks in hedgerows, woodland edges and foraging in fields.
- 4.3.28 Flocks of typical farmland birds were also noted across the survey period with skylark, yellowhammer and linnet all forming independent flocks. These birds were recorded foraging across the site. Yellowhammer was particularly faithful to the site across the survey campaign. Other birds of conservation concern were noted, specifically song thrush, greenfinch and stock dove with woodpigeon recorded in flight and in flocks foraging within fields. Several raptors were also observed flying, perching and hunting across site, with sparrowhawk, kestrel and red kite noted.
- 4.3.29 Firecrest was noted during the wintering bird survey period, though this was noted in March. The birds recorded on site during the wintering (non-breeding) period were not recorded in remarkable numbers, or in numbers particularly noteworthy. The wintering assemblage was typical of the type of habitats recorded within an agricultural landscape intersected by woodland and hedgerows. The wintering bird assemblages is considered to be of up to local importance.

Great crested newt

- 4.3.30 Three records of GCN were returned from the biological record data, from within 2km of the Site, within the last 10 years.
- 4.3.31 15 Ponds were identified within a 250m buffer of the Site, six of which are within the Site. eDNA surveys were completed in 2026. Positive eDNA was returned from six of the nine sampled ponds (four of which are within the site) indicating presence of GCN within the Site and surrounding landscape.
- 4.3.32 Hedgerows, grassland margins, and woodland provide connectivity and suitable habitat for GCN terrestrial and hibernating phases.

Reptiles and other amphibians

- 4.3.33 No records of reptiles or other amphibian species were returned from the biological record data, from within 2km of the Site, within the last 10 years.
- 4.3.34 The Site had some suitable habitat for reptiles and amphibians; within the ditches, brooks, and grasslands, with the hedgerows and grassland margins providing suitable

habitat for basking, foraging, and hibernating. It was also noted that habitat connectivity and suitable habitat for the terrestrial phase of the year.

Otter

- 4.3.35 No records of otter were returned from the biological record data, from within 2km of the Site, within the last 10 years.
- 4.3.36 The brooks and ponds provide suitable habitat for holts, couches and resting places. Additionally, the watercourses are suitable for foraging and commuting, also providing connectivity to the wider landscape.
- 4.3.37 During an otter and water vole survey undertake in May 2026, an otter spraint was recorded on the banks of Toppesfield Brook. Whilst multiple runs along the banks and into the watercourse were recorded, they could not be confirmed as otter; however, otter presence cannot be discounted.
- 4.3.38 Anecdotally otter have been noted by the local community on Site, with observations from one of the larger ponds.

Water vole

- 4.3.39 No records of water vole were returned from the biological record data, from within 2km of the Site, within the last 10 years.
- 4.3.40 The brooks and ponds provide suitable habitat for burrows. Additionally, the watercourses are suitable for foraging and commuting, also providing connectivity to the wider landscape.
- 4.3.41 Potential evidence in the form of water vole burrows was recorded along Toppesfield Brook. The presence of water vole droppings and latrines are the only field signs that can be reliably used to confirm the species' presence. Other signs are used as corroborative evidence of small mammal activity such as burrows and paths.

Hazel dormouse

- 4.3.42 No hazel was noted within the hedgerows; however, the hedgerows are intact and suitable to support dormouse. With reference to the hazel dormice range and distribution maps the Site borders areas classified as dormouse being 'present' and 'rare'.

Future Baseline

- 4.3.43 The future baseline for ecology and nature conservation is expected to remain as the current existing baseline in the absence of the Proposed Development as it is likely the current management of the Site as farmland will be maintained.

Proposed Data Sources

Desk Study

- 4.3.44 The data sources proposed to be used for the assessment of ecology and nature conservation are set out in **Table 4.6**.

Table 4.6:Data Sources

Data	Source
Authoritative geographic information about the natural environment	Multi-Agency Geographic Information for the Countryside

Data	Source
Biological record data and non-statutory designated sites.	Essex Field Club
Designated sites.	Natural England and Joint Nature Conservation Committee (JNCC) websites
Great crested newt (GCN) impact risk zones.	District Level Licencing Data
Base mapping	Ordnance Survey mapping
Aerial imagery	Google Maps/ Google Earth

Embedded Mitigation Measures

4.3.45 At this stage, the following measures are proposed to be adopted, in accordance with the mitigation hierarchy (avoid, prevent, reduce or offset). These measures may evolve (and be further refined) as the design and EIA process progresses.

- Opportunities to retain grazing under panels will be explored and considered alongside other compatible land uses as measures to maximise biodiversity; however, for the purposes of the scoping phase, a precautionary approach will be adopted whereby machine-based vegetation management is assumed, unless grazing represents a demonstrably worse-case scenario for biodiversity outcomes;
- Infrastructure and construction works will be located at suitable buffer distances from protected species and/or sensitive working techniques will be employed. Further detailed information will be provided within the ES chapter;
- A minimum buffer of 10m from the bank top for main rivers and 5m for ditches will be applied, which all elements of the Proposed Development will avoid, where possible, with the exception of access tracks and crossing points;
- A minimum buffer of 5m around hedgerow / field boundaries will be applied, which all elements of the Proposed Development will avoid, where possible, with the exception of access tracks;
- Any removal of hedgerows will be limited to the creation of localised access points only, where new access points are required, they are not expected to be of a width greater than 10m, but this would be subject to further design;
- A minimum buffer of 10m around woodland will be applied, which all elements of the Proposed Development will avoid, where possible, with the exception of access tracks;
- A minimum buffer around any identified ancient / veteran trees will be 15 times trunk diameter or canopy spread + 5 m (whichever is greater);
- The design will be sensitive to ecologically valuable habitats. Loss of woodland and hedgerow will be avoided where practicable and where required, will be limited to that considered necessary to facilitate access points, cable routes or fencing with reinstatement, where possible, following completion of works (using mitigation hierarchy). Access tracks and cable routes will be positioned to pass through existing field gates and gaps in hedgerows where practicable;
- Fencing of the solar panel array and associated infrastructure areas will be designed to allow passage of small mammals (e.g. badger, brown hare) through permeable fence design, including incorporation of appropriate mammal gates or small naturally occurring gaps;

- Impacts to ditches will be restricted to localised crossings only, where possible existing ditch crossings will be used;
- New watercourse / ditch crossings will be minimised and sensitively designed to allow the continued movement of wildlife along the watercourse;
- Root protection areas in line with BS:3857 will be adhered to, where possible;
- There will be no permanent new lighting of boundary features (hedgerows and ditches). Motion sensing security lighting will be provided within on-site substations to be used for maintenance and security purposes;
- Existing hedgerows in poor condition will be reinforced with new planting where feasible to strengthen habitat connectivity. Opportunities for connection and extension of woodland and hedgerow will also be explored to contribute towards Local Nature Recovery Strategy targets; and,
- The ES will include a commitment to an oCEMP which will be provided as an appendix and will detail the above measures. The oCEMP will describe measures to be implemented during the construction process and may, for example, include commitments to Species Protection Plans, precautionary working method statements (PWMS), pre-construction surveys and appropriate derogation licenses as well as pollution (including dust) control, managed construction lighting and noise / traffic management measures; and,
- Construction lighting mitigation will be included in the oCEMP to ensure lighting of suitable bat commuting, foraging and roosting habitats and otter/water vole habitat is minimised;
- Assignment and utilisation of an Ecological Clerk of Works (ECoW) to carry out pre-construction nesting bird checks, define exclusion buffers around any active nests (if necessary), and oversee works as required. Vegetation clearance will be timed, where practicable, outside the bird breeding season (March–August), or otherwise undertaken under ECoW supervision with appropriate safeguards in place;
- Ensuring all open excavations are either ramped or fenced such that unintended entrapment of fauna, e.g. badgers, does not occur;
- Provision of an ECoW to undertake pre-construction surveys to minimise impacts to great crested newt, reptiles and nesting birds during construction, via conducting searches of habitats in advance and establishing temporary buffer zones;
- Measures to avoid pollution or sediment transfer during construction; and
- Provision of an Invasive Species Management Plan (ISMP).

Proposed Scope of the Assessment

- 4.3.46 The sensitive features identified, potential magnitude of impacts and the likelihood of a resulting significant effect during the construction phase, with consideration of mitigation, are summarised in **Table 4.7**. The ecological features to be scoped into the assessment will be reviewed as the project design evolves and as additional information is gathered from planned surveys. The below information presents the rationale for each ecological feature to be scoped in or out of the ES based on the information gathered to date and professional opinion.

Construction

- 4.3.47 There is the potential for the following construction impacts on important ecological features:

- Direct and indirect impacts to locally designated sites adjacent to the Site (disturbance/degradation of habitats and species);
- Direct habitat loss within the Site;
- Fragmentation of habitat across the Site;
- Indirect habitat loss/damage through degradation of retained/adjacent habitats;
- Indirect impacts to habitats and species through pollution (e.g. dust deposition, runoff, lighting);
- Direct disturbance, killing and/or injury of protected/notable species as well as displacement of species within proximity of the Proposed Development; and
- Spread of invasive species.

Operation and Maintenance

4.3.48 There is the potential for the following operational impacts on important ecological features:

- Degradation of retained habitats through lack of management;
- Disturbance / displacement of species due to presence of solar panels;
- Disturbance / displacement of species during operational maintenance;
- Disturbance / displacement due to the replacement of solar PV modules during the operational phase;
- Disturbance / displacement due to lighting of habitats that support light sensitive species such as bats; and
- Potential increase in botanical, bird and invertebrate species-richness due to habitat enhancements and ongoing management associated with BNG.

4.3.49 Risk of impacts to ground nesting farmland and wintering birds during maintenance operations (via vehicle movements) would be expected to be similar or less than the current agricultural operations. Operational activity will be limited to periodic maintenance and operational replacement which would be temporary and short-term.

Decommissioning

4.3.50 It is considered that the decommissioning activities have the potential for the following impacts on important ecological features:

- Indirect impacts to locally designated sites (pollution, disturbance/degradation of habitats and species);
- Direct habitat loss of habitats (retained, or reinstated);
- Fragmentation of habitat (retained, or reinstated);
- Indirect habitat loss/damage through degradation of retained/adjacent habitats;
- Indirect impacts to habitats and species through pollution;
- Direct disturbance, killing and/or injury of protected/notable species as well as displacement of species within proximity of the scheme; and
- Spread of invasive species.

4.3.51 Outline mitigation measures for the decommissioning stage will be set out in the ES with detail to be provided prior to the decommissioning of the Proposed Development. This will ensure the removal of infrastructure is managed through protection measures and the

restoration of habitats at the end of the Proposed Development's life, thereby mitigating long-term and residual ecological effects.

Table 4.7: Ecology Scoping Summary

Ecological feature	Feature importance	Feature summary	Potential for significant effect	Scoped in / Scoped out
Designated Sites				
Robin Hood Farm Meadow LWS (0.2 km straight-line distance)	Local	Species-rich meadow	A watercourse hydrologically connects the designation and the Site, however, the designated site is situated upstream of the Proposed Development, therefore, in the unlikely event of any pollution or sedimentation events (due to embedded mitigation measures) into the connected watercourse any pollutants/similar would not flow into/towards the designation. Indirect impacts such as dust deposition will be avoided through best practice measures as secured by the CEMP.	Scoped out for construction, operation and decommissioning
Berwickhall Wood LWS, Ostend Wood LWS, Park Wood, Wethersfield Aerodrome LWS and Outfield Wood / Boyton Grove LWS. (2.4 km straight-line distance)	Local	Ancient woodland	Potential impacts to the qualifying features of these designations are considered unlikely due to distance and lack of impact pathways with the potential to affect designated features during the construction, operation, and decommissioning phases.	Scoped out for construction, operation and decommissioning
Habitats				
Arable land	Negligible	Throughout the Site	Loss of extensive areas of arable habitat is anticipated. This habitat is of negligible ecological importance.	Scoped out for construction, operation and decommissioning

Ecological feature	Feature importance	Feature summary	Potential for significant effect	Scoped in / Scoped out
			For those species of which this habitat has value (such as breeding and wintering birds), these species are scoped into the assessment, and the value of this habitat is assessed as part of that aspect.	
Grassland	Local	Throughout the Site	Habitat loss.	Scoped in for construction, operation and decommissioning
Waterbodies (ponds)	Local	Throughout the Site and up to 250m from the Site	Embedded mitigation measures will seek no loss of ponds and a buffer of 10m around ponds. This buffer, as well as the oCEMP and oLEMP, should suffice to prevent impacts from potential damage to retained habitat during construction, operation, and decommissioning phases.	Scoped in for construction, operation and decommissioning.
Ditches	Local	Throughout the Site	Following the embedded mitigation measures, losses would be limited to necessary crossing locations.	Scoped in for construction, operation and decommissioning
Watercourses	Local	Toppesfield Brook	Following the embedded mitigation measures, losses would be limited to necessary crossing locations.	Scoped in for construction, operation and decommissioning,
Hedgerow	Local	Throughout the Site	Following the embedded mitigation measures, losses would be limited to access locations, but sections of hedgerow may be removed to connect fields and allow for larger solar panel areas.	Scoped in for construction, operation and decommissioning

Ecological feature	Feature importance	Feature summary	Potential for significant effect	Scoped in / Scoped out
Trees	Local	Throughout the Site	Following the embedded mitigation measures, losses would be limited to access locations, but trees may be removed to connect fields and allow for larger solar panel areas.	Scoped in for construction, operation and decommissioning.
Broad-leaved woodland	Local	Throughout the Site	No loss of this habitat is anticipated as woodland habitat will be retained and a 10 m buffer from woodland habitat is proposed, which will be sufficient to protect the habitat from any potential damage during construction, operation, and decommissioning phases.	Scoped out for construction, operation and decommissioning.
Degradation of retained habitats	Local	Throughout the Site	Potential for damage to retained habitats will be avoided by following the embedded mitigation measures set out in the oCEMP and oLEMP to be submitted with the application.	Scoped out for construction, operation and decommissioning
Invasive non-native flora	Negligible	Within the Site.	Potential for spread if they occur in areas affected by construction, operation, and decommissioning activities. Invasive species impacts will be managed via embedded mitigation Measures in the form of an ISMP.	Scoped out for construction, operation and decommissioning
Species				
Amphibians	Local	eDNA surveys confirmed presence of GCN within the Site.	Loss and/or temporary fragmentation of habitat and disturbance, killing and/or injury during construction and decommissioning. No significant impacts are anticipated during	Scoped in for construction and decommissioning. Scoped out for operation.

Ecological feature	Feature importance	Feature summary	Potential for significant effect	Scoped in / Scoped out
			operation. Maintenance and replacement activities can be managed through appropriate embedded avoidance measures as part of the Operational Environment Management Plan (OEMP). Habitats within solar areas will be improved for amphibians.	
Reptiles	Local	Suitable habitat within the Site, no biological records returned or any signs/evidence during baseline surveys.	Arable habitats that dominate the Site provide suboptimal habitat for reptiles, with habitats offering more suitable reptile habitat, principally comprising field boundary habitats to largely be retained and protected throughout construction of the Scheme with 5 m buffers around field boundary habitats. Small scale habitat impacts will be managed through embedded avoidance measures implemented by ECoW.	Scoped out for construction, operation and decommissioning.
Badger	Local	Presence confirmed within the Site	Loss and/or fragmentation of habitat Disturbance, killing and/or injury. Sensitive working methods and embedded mitigation measures will include the provision of mammal gates or natural gaps in boundary fences which will minimise impacts during operation.	Scoped in for construction and decommissioning. Scoped out for operation.
Bats	Local	Suitable habitat to support commuting and foraging bats.	Loss and/or fragmentation of habitat, disturbance, potential loss of roost opportunities in trees (impacts unclear	Scoped in for construction, operation and decommissioning

Ecological feature	Feature importance	Feature summary	Potential for significant effect	Scoped in / Scoped out
			until surveys are complete and final design is known).	
Otter	Local	Signs of otter were identified along one watercourse. Otter surveys are continuing in August 2026.	Loss and/or fragmentation of habitat, potentially including breeding habitat, Disturbance, killing and/or injury. Impacts on habitats are uncertain until the final design is known. Operational impacts are considered to be limited and access to watercourses for this species will be maintained.	Scoped in for construction and decommissioning. Scoped out for operation.
Water vole	Local	Inconclusive evidence of water vole recorded on Toppesfield Brook in May 2026. Water vole surveys are continuing in August 2026.	Loss and/or fragmentation of habitat Disturbance, killing and/or injury. Impacts on habitats are uncertain until the final design is known. Operational impacts are considered to be limited and access to watercourses for this species will be maintained.	Scoped in for construction and decommissioning. Scoped out for operation.
Brown hare	Local	Suitable habitat throughout the Site	Construction impacts will be managed through embedded mitigation, such as ECoW, and appropriate avoidance measures. During operation, fencing of the solar panel areas and associated infrastructure areas will be designed to allow passage of small mammals through incorporation of appropriate gates.	Scoped out for construction, operation and decommissioning.

Ecological feature	Feature importance	Feature summary	Potential for significant effect	Scoped in / Scoped out
Hedgehog	Local	Suitable habitat throughout the Site	Construction impacts will be managed through embedded mitigation, such as ECoW, and appropriate avoidance measures. During operation, fencing of the solar panel areas and associated infrastructure areas will be designed to allow passage of small mammals through incorporation of appropriate gates.	Scoped out for construction, operation and decommissioning.
Dormouse	County	Suitable intact hedgerows throughout the Site	The limited extent of hedgerow removal would not result in the loss of function of suitable habitat, fragmentation of habitat connectivity, or severance of dormouse populations, should the species be present.	Scoped out for construction, operation and decommissioning.
Invertebrates	Local	Suitable habitat throughout the Site	Loss / fragmentation of habitat is unlikely to be of sufficient magnitude to affect populations locally based on the dominance of monoculture agricultural habitats present. Embedded mitigation measures will include a minimum buffer of 5m from field boundaries.	Scoped out for construction, operation and decommissioning.
Aquatic fauna	Local	Suitable habitat within the Site	Loss and/or temporary fragmentation of habitat. Disturbance, killing and/or injury.	Scoped in for construction and decommissioning. Scoped out for operation.
Ground nesting birds	Local to County (precautionary)	Suitable habitat is present within the Site (e.g. arable land and field margins)	Potential impacts include the loss of suitable nesting habitat, disturbance to birds, and the risk of harm or injury	Scoped in for construction, operational and decommissioning

Ecological feature	Feature importance	Feature summary	Potential for significant effect	Scoped in / Scoped out
		which may support ground nesting bird species. Surveys are ongoing and therefore the assemblage and population levels are not yet fully defined.	during vegetation clearance and construction or maintenance activities.	
Schedule 1 birds	National	Schedule 1 species are afforded additional protection under the Wildlife and Countryside Act 1981 (as amended). Suitable habitat is present within and surrounding the Site, evidence/signs of Schedule 1 species have been recorded within the Site.	Disturbance to breeding birds and wintering birds and dependant young (including risk of nest abandonment); Loss and/or modification of habitat; and risk of harm or injury during construction activities.	Scoped in for construction, operational and decommissioning

Proposed Assessment Methodology

- 4.3.52 The assessment methodology proposed to be used for the impacts proposed to be scoped in as set out is described below.

Legislation and Policy

- 4.3.53 The ecology and nature conservation assessment for the Proposed Development must comply with domestic legislation and international agreements that protect habitats and species. These frameworks require potential impacts to be assessed, significant adverse effects to be avoided, and appropriate mitigation measures to be implemented where necessary. Collectively, they provide the legal and policy basis for ensuring that impacts on biodiversity are properly understood, evaluated, and mitigated.
- 4.3.54 Relevant legislation includes:
- International*
- Convention on Wetlands of International Importance especially as Waterfowl Habitat 1971 ('the Ramsar Convention')

- Convention on the Conservation of European Wildlife and Natural Habitats 1979 ('the Bern Convention)
- UNESCO convention on the protection of the World Cultural and Natural Heritage (1972)

National

- The Conservation of Habitats and Species Regulations 2017 (as amended);
- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019;
- The Wildlife and Countryside Act 1981 (as amended);
- The Environment Act 2021;
- Countryside and Rights of Way Act 2000;
- The Invasive Alien Species (Enforcement and Permitting) Order 2019;
- Protection of Badgers Act 1992;
- Hedgerow Regulations 1997; and,
- The Natural Environment and Rural Communities (NERC) Act 2006.

4.3.55 Relevant national planning and other policy includes:

- Ancient woodland, ancient trees and veteran trees: advice for making planning decisions (Natural England. 2022);
- Biodiversity Net Gain. Good practice principles for development;
- BS 42020:2013 Biodiversity – Code of Practice for Planning and Development;
- BS 8683:2021 Process for Designing and Implementing Biodiversity Net Gain – Specification;
- European protected species policies for mitigation licences (Natural England. 2022);
- National Planning Policy Framework 2 (NPPF, 2024);
- The United Kingdom Biodiversity Action Plan (UK BAP);
- Wildlife licensing: comment on new policies for European protected species licence (Natural England, 2016);
- Overarching National Policy Statement for Energy (NPS EN-1)
- National Policy Statement for Renewable Energy Infrastructure (NPS EN-3);
- National Policy Statement for Electricity Networks Infrastructure (NPS);
- National Planning Policy Framework (NPPF); and
- Environmental Improvement Plan (EIP).

4.3.56 Relevant local planning policy includes:

- Essex Local Nature Recovery Strategy;
- Essex County Council Environment Policy;
- Essex Green Infrastructure Strategy; and,
- Braintree District Local Plan.

Relevant Guidance

4.3.57 Guidance documents relevant to the assessment of the impacts of the Proposed Development on ecology and nature conservation include:

- The 25-year Environment Plan;
- Natural England and Department for Environment, Food and Rural Affairs ('DEFRA') Standing Advice (protected species);
- Chartered Institute of Ecology and Environmental Management ('CIEEM') (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland, Terrestrial, Freshwater, Coastal and Marine;
- UKHab (2023) The UK Habitat Classification;
- Chartered Institute of Ecology and Environmental Management ('CIEEM'), Construction Industry Research and Information Association ('CIRIA'), Institute of Environmental Management and Assessment ('IEMA') (2016) Biodiversity Net Gain. Good practice principles for development;
- BS 42020:2013 Biodiversity – Code of Practice for Planning and Development (British Standard);
- Defra (2024) Statutory Biodiversity Metric User Guide;
- Stanbury et al., (2021) Birds of Conservation Concern 5 ('BoCC5')
- Bird Survey & Assessment Steering Group (2025) Bird Survey Guidelines for assessing ecological impacts;
- The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second International Union for Conservation of Nature ('IUCN') Red List assessment of extinction risk for Great Britain;
- Collins, J. (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines 4th edition;
- CIEEM (2023) UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats;
- Bat Tree Habitat Key ('BTHK') Bat Roosts in Trees: a guide for identification and assessment for tree-care and ecology professionals;
- English Nature (2001) Great Crested Newt Mitigation Guidelines;
- Amphibian and Reptile Group ('ARG') UK (2010) Advice Note 5, Great Crested Newt Habitat Suitability Index;
- Froglife (1999) Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice sheet 10;
- Natural England standing advice (2025) Badgers: advice for making planning decisions;
- Andrews (2013) The Classification of Badger (*Meles meles*) Setts in the UK: A Review and Guidance for Surveyors;
- Mammal Society (2016) The Water Vole Mitigation Handbook;
- Dean (2021) Water Vole Field Signs and Habitat Assessment - A Practical Guide to Water Vole Surveys;

- Strachan, R., Moorhouse, T. and Gelling, M. (2011) Water Vole Conservation Handbook. Third Edition; and
- Chanin (2003) Monitoring the Otter *Lutra lutra*.

4.3.58 Other guidance documents, such as specific survey methodologies, will be considered and referenced throughout the ES chapter, as appropriate.

Assessment of Effects

4.3.59 Potential impacts of the Proposed Development on ecology and nature conservation will be assessed in accordance with the method set out in **section 3.5** of this EIA Scoping Report. Where significant adverse effects are likely to occur, suitable mitigation or compensatory measures will be identified.

4.3.60 The approach to mitigation is set out in **section 3.5** of this EIA Scoping Report. Embedded (primary and tertiary) measures will be taken into account within the assessment. Where secondary measures are proposed, an assessment of the residual effect with these in place will also be presented.

Feature Sensitivity

4.3.61 The sensitivity criteria to be used for the ecological assessment are outlined in Table 4.8.

Table 4.8: Sensitivity Criteria

Sensitivity	Criteria
Very High	• An internationally designated site (Special Protection Areas (SPA), Special Areas of Conservation (SAC) and/ or Ramsar sites) or proposed / candidate site (pSPA or cSAC). • Large area of a habitat listed in Annex I of the Habitats Directive or smaller areas of such habitat which are essential to maintain the viability of the larger whole. • A regularly occurring, nationally significant population of an internationally important species or site supporting such a species (or supplying a critical element of their habitat requirement) or species listed in Annex IV of the Habitats Directive
High	• A nationally designated site (e.g. Site of Special Scientific Interest) or a discrete area which meets the selection criteria for national designation. • An area of a habitat of principal importance listed under Section 41 of the NERC Act or which constitutes a significant proportion of the UK resource of that habitat. • A regularly occurring, regionally significant population of any nationally important species listed as a UK BAP / Biodiversity List and priority species listed under Section 41 of the NERC Act, and Species listed under Schedule 1 or Schedule 5 of the Wildlife and Countryside Act or Annex II or Annex IV of the Habitats Directive.
Medium	• Locally designated sites (Local Wildlife Sites). • Areas of habitats of principal importance which constitutes a significant proportion of the County's resource of that habitat. • A regularly occurring, locally significant population of any nationally important species listed as a UK BAP / species of principal importance and priority species listed under Section 41 of the NERC Act, and Species listed under Schedule 5 of the Wildlife and Countryside Act or Annex II or Annex IV of the Habitats Directive
Low	• Local area around the Proposed Development.

Sensitivity	Criteria
	For example, areas of priority habitat which are not large enough to meet the criteria for County value, or small but sustainable populations of a protected or notable species
Negligible	Considered within the context of the Proposed Development Site only.

Impact Magnitude

4.3.62 The criteria for defining the magnitude of impacts to be used in the assessment of geology, hydrogeology and ground conditions are outlined in **Table 4.9**.

Table 4.9: Magnitude of Impact Criteria

Magnitude of impact	Definition
High	The change may negatively or positively affect the conservation status of a site or species population, in terms of the coherence of its ecological structure and function, that sustains the habitat, complex of habitats and/or the population levels of species of interest.
Medium	Conservation status of a site or species population will not be negatively or positively affected, but some element of the functioning of the site or population might be affected and the change to the site / population is likely to be significant in terms of its ability to sustain some part of itself in the long term.
Low	Neither of the above applies, but some minor negative or positive change is evident on a temporary basis, or the change affects extent of habitat or individuals of a species abundant in the local area.
Negligible	No observable effect in either direction.

Significance of Effect

- 4.3.63 The significance of the effect will be determined by taking into account the sensitivity of the feature and the magnitude of the impact. The matrix to be used in order to determine the significance of effect is presented in **Table 3.4** of this EIA Scoping Report.
- 4.3.64 Where a range of significance levels is presented, the final assessment for each effect will be based upon expert judgement. For the purpose of the assessment, any effects with a significance level of moderate or above will be considered to be significant. Where the magnitude of impact is 'no change', no effect would arise.
- 4.3.65 In all cases, the evaluation of feature sensitivity, impact magnitude and significance of effect will be informed by professional judgement and underpinned by narrative to explain the conclusions reached.

Cumulative Effects and Inter-related Effects

- 4.3.66 The CEA for ecology and nature conservation will follow the general methodology set out in **section 3.6** of this EIA Scoping Report. The ecology and nature conservation chapter of the ES will also consider inter-related effects arising from the Project, including potential project lifetime and feature-led effects. This assessment will be undertaken in accordance with the standard industry guidance and approach, as outlined in **section 3.7** of this EIA Scoping Report.

4.4 Historic Environment – ES Chapter

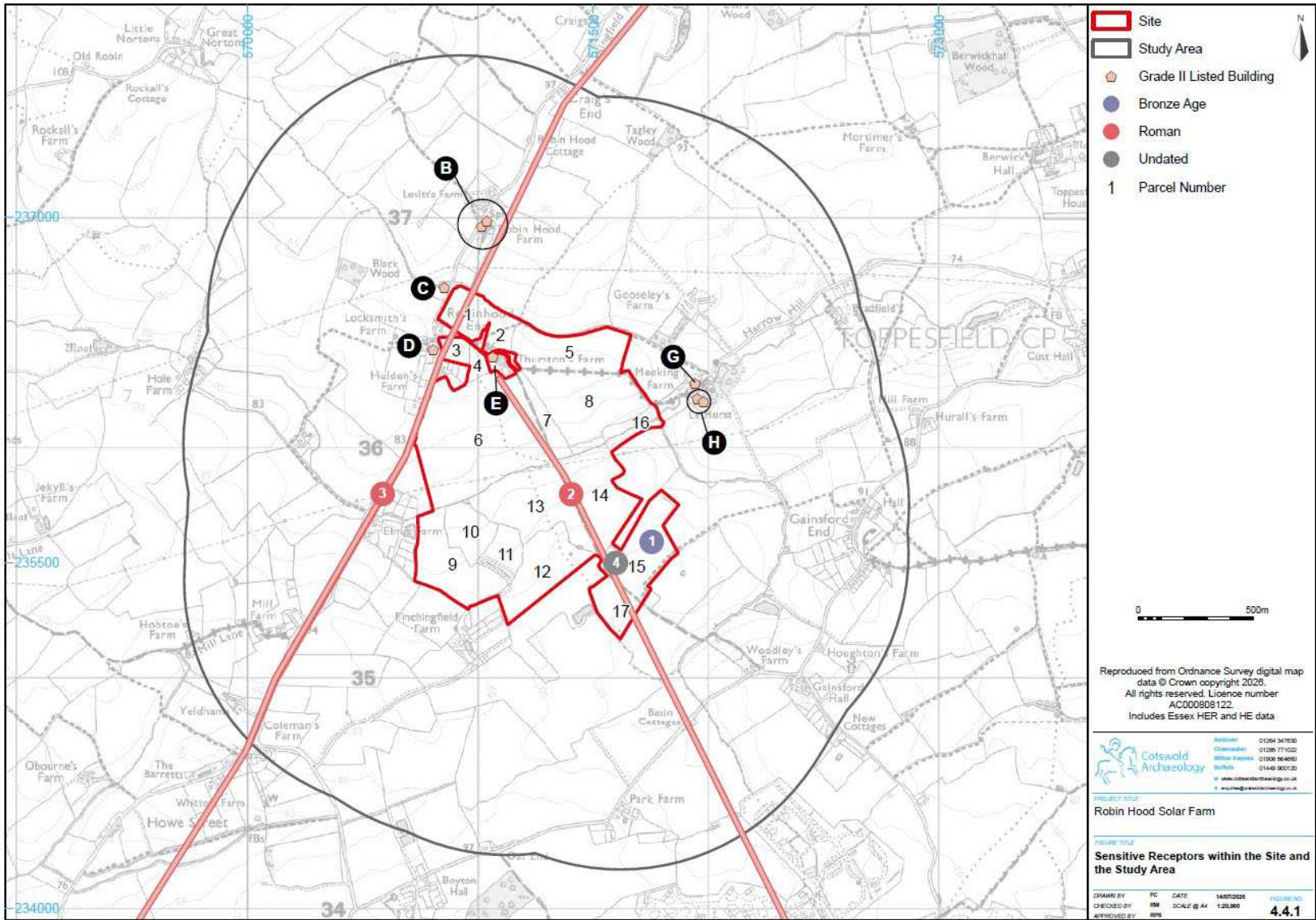
Introduction

- 4.4.1 This section of the EIA Scoping Report sets out the proposed scope and methodology for the assessment of effects on the historic environment. This chapter of the ES Scoping Report has been produced by Cotswold Archaeology and sets out considerations regarding potential impacts of the Development upon the historic environment ('heritage assets').
- 4.4.2 The historic environment encompasses buried archaeological remains; historic buildings, structures and monuments; and historic landscapes. The reasons why the historic environment topic is proposed to be scoped into the EIA are presented, and the suggested approach for addressing the cultural heritage constraints through appropriate assessment and investigation, under the terms of the NPPF is detailed. However, it is worth noting that significant effects on elements of the historic environment are not expected to occur. The nature of the construction impacts for solar developments on potential buried remains are 'limited in scale', as is recognised in government policy (EN-3, 2025) and industry good practice guides (Archaeology and Solar Farms: good practice guide; ALGAO 2026) . Also, the primary (embedded) mitigation incorporated within the design parameters has (and can) avoid material adverse effects on the significance of the built heritage and historic landscape via changes to their setting and character.
- 4.4.3 This chapter has been informed by the draft of a previous Historic Environment Desk-Based Assessment (HEDBA; Cotswold Archaeology 2026) which was in turn informed by a geophysical survey undertaken in 2026 by Magnitude Surveys (2026).

Proposed Study Area for Assessment

- 4.4.4 A 1km study area (hereafter referred to as "the Study Area"), measured from the boundaries of the Site, is considered appropriate to provide a contextual baseline of known heritage assets and to inform on the likelihood of encountering archaeological remains within the Site (**Figure 9**). The Study Area also formed the basis for assessing potential impacts to proximate designated heritage assets, arising from changes to their settings, as noted within the HEDBA. However, there is scope to refine elements of the Study Area to accommodate the assessment of heritage assets that lie at greater distance from the Site, should this be identified through more detailed reviews and via consultation with the relevant heritage consultees.

Figure 9: Proposed Study Area and Sensitive Receptors



Baseline Environment

- 4.4.5 An outline of the baseline environment for the historic environment based upon an initial review is provided below.
- 4.4.6 The summary presented here is based upon the findings of the HEDBA draft. This was informed by a geophysical survey undertaken by Magnitude Surveys (2026), as well as by the review of Historic England's (HE) National Heritage List for England (NHLE) of designated heritage assets, by the Essex Historic Environment Records (HER), historic aerial photographs, cartographic and documentary sources and Light Detection and Ranging (LiDAR) data.

Designated Sites

- 4.4.7 Designated sites ('assets') within the study area which will be considered in the EIA are summarised in **Table 4.10** and presented on **Figure 9**. Further designated assets present within the study area were assessed and reported in the HEDBA and scoped out from more detailed assessment.

Table 4.10: Designated Sites – Historic Environment

Site	Interest/Reason for Designation
Internationally Designated Sites	
N/A	N/A
Nationally Designated Sites	
Robin Hood Farmhouse and Barn c. 20m south-west of Robin Hood Farmhouse, c. 300m north-east of the Site (B)	Grade II Listed Building
Brook House, c. 50m west of the Site (C);	Grade II Listed Building
Locksmith's Farmhouse, c. 40m west of the Site (D)	Grade II Listed Building
Thurston's Farmhouse, surrounded by the north-east section of the Site (E)	Grade II Listed Building
Meekings Farmhouse, c. 130m east of the Site (G)	Grade II Listed Building
Le Hurst Farmhouse and Barn c. 20m north-west of Le Hurst Farmhouse, c. 100m and 130m east of the Site east of the Site (H)	Grade II Listed Building
Locally Designated Sites	
N/A	N/A

Historical and Archaeological Background

- 4.4.8 The HEDBA draft identified a potential for as yet unrecorded, buried archaeological remains to survive within the Site.
- 4.4.9 The Site lies on superficial riverine deposits favourable for prehistoric activity. Earthworks in parcel 15 were initially associated with a possible Bronze Age barrow (Fig. 4.4.1, 1), but LiDAR analysis and the walkover suggest this is more likely a possible moated site; geophysical anomalies in the same area may instead indicate a late prehistoric or Roman enclosure. Roman activity is further represented by the postulated routes of two roads (Fig. 4.4.1, 2 and 3), although no roadside ditches or related features were identified by geophysical survey. In the medieval period, the Site formed part of the landscape between Stambourne, Toppesfield and Finchingfield, with no clear settlement evidence beyond the possible moat in parcel 15. Historic field-names indicate potential for a medieval or post-medieval church between parcels 14 and 15 (Fig. 4.4.1, 4). This could however instead correspond to a plague pit likely containing buried human remains. Earthworks and anomalies noted from the geophysical survey in parcel 6 could correspond to industrial, settlement or agricultural features dating to the medieval, post-medieval and modern periods.

Proposed Data Sources

Desk Study

- 4.4.10 The HEDBA will inform the Historic Environment ES chapter and will form a Technical Appendix.
- 4.4.11 The data sources used for the assessment of impacts on the historic environment are set out in **Table 4.11**.

Table 4.11: Data Sources

Data	Source
Current information relating to designated heritage assets, and heritage assets considered to be 'at risk'.	National Heritage List for England (NHLE)
Heritage sites and events records, Historic Landscape Characterisation (HLC) data, and other spatial data supplied in digital format (shapefiles) and hardcopy.	Essex Historic Environment Record (HER)
Additional sites and events records, supplied in digital and hardcopy formats.	Historic England Archive (HEA)
Historic mapping, historic documentation, and relevant published and grey literature.	Essex Record Office Archives
Vertical and oblique aerial photography ranging in date from the 1940s to present.	Historic England's Aerial Photograph Research Unit
Lidar imagery and point cloud data, available from the Defra Data Services Platform	Defra Data Services Platform (environment.data.gov.uk)

Data	Source
Historic (Ordnance Survey and Tithe) mapping in digital format.	Genealogist, Envirocheck, National Library of Scotland & other cartographic websites
UK geological mapping (bedrock & superficial deposits) & borehole data.	British Geological Survey (BGS) website
Findspots of artefacts recovered by members of the public, whether as stray finds or through systematic fieldwalking/metal-detecting surveys, downloaded in CSV format and imported into GIS, whose given location is however approximative. The data cannot be reproduced.	Portable Antiquity Scheme (PAS)

Site-specific Surveys

- 4.4.12 A geophysical survey has been undertaken to inform the baseline assessment for the historic environment (Magnitude Surveys 2026). This confirmed the potential for the presence of buried archaeological remains within the Site. The report, alongside the HEDBA will form a Technical Appendix to the Historic Environment ES Chapter.

Embedded Mitigation Measures

- 4.4.13 At this stage, the following measures are proposed to be adopted, in accordance with the mitigation hierarchy (avoid, prevent, reduce or offset). These measures may evolve (and be further refined) as the design and EIA process progresses.
- No built form introduced within parcels 1, 2, 3, 4, 5, 7 and 16 provides a buffer of agricultural land between the proposed development and the Grade II Listed Locksmith Farmhouse and Thurston's Farmhouse. For the same reason, the built form associated with the proposed development will not be visible from Grade II Listed Robin Hood Farmhouse and associated Grade II Listed Barn and Grade II Listed Brook House.
 - The areas of hedgerow planting enclosing the eastern and southern sides of the proposed development in parcel 8 and 14 will ensure no or very limited intervisibility between new built form and the Grade II Listed Meekings Farmhouse and Grade II Listed Le Hurst Farmhouse and Barn c. 20m north-west of Le Hurst Farmhouse.
 - Where sensitive archaeology is located on the site, no dig methods of construction can be utilised, such as using 'concrete shoe' foundations, which sit on top of the land thereby not interfering with the archaeological remains below. Hanging cable trays may also be utilised, meaning that cables in more archaeologically sensitive areas do not need to be dug into the ground. 'No dig' access track construction methods can also be utilised to protect archaeological resources within the ground. All archaeological mitigation methods will be discussed with Essex Council and Braintree District Council, and any other relevant parties.

Proposed Scope of the Assessment

- 4.4.14 Potential impacts that are proposed to be scoped into the assessment are set out in **Table 4.12**.

Impacts Proposed to be Scoped Out

- 4.4.15 Potential impacts that are proposed to be scoped out of the assessment and the justification are set out in **Table 4.13**.

Table 4.12: Impacts Proposed to be Scoped into the Assessment for the Historic Environment

Impact	C	O	D	Description	Proposed Approach to Assessment
Impacts upon buried archaeological remains .	✓	✗	✗	Buried archaeological remains would be principally affected during ground disturbance which would occur as part of the construction phase and also potentially the decommissioning phase of the Proposed Development. These have the potential to result in the loss of archaeological evidence and adverse impacts on historic interest.	Based on the HEDBA draft and the understanding of the Site, there is a potential that buried archaeological remains are present within the Site. However, the limited nature of ground disturbing activities associated with the construction and decommissioning of the solar element of the Proposed Development means that significant effects on the archaeological interest (significance) of any potentially surviving remains is very unlikely. The effects resulting from the Proposed Development upon buried archaeological remains present within the Site will be assessed in the ES Chapter, following the methodology discussed below.
Impacts upon setting of built heritage assets	✓	✓	✓	There is potential for the operation of the Proposed Development to result in non-physical (temporary and reversible) effects via changes to the experience within the setting of some of the Grade II Listed Buildings within the study area.	The assessment of the ES Chapter will be informed by the HEDBA draft which has been undertaken in line with the staged approach indicated by Good Practice Advice in Planning: Note 3 (GPA3): The Setting of Heritage Assets, Second Edition (Historic England 2017). The effects resulting from the Proposed Development upon the setting of the built heritage assets will be assessed in the ES Chapter, following the methodology discussed below.
Impacts on historic landscape character (via changes of land-use or loss of valued elements)	✓	✓	✗	The construction and operation of the Proposed Development would introduce a new built form and different character.	The historic landscape character has been assessed in the HEDBA draft through the analysis of the available historic cartographic sources and the data available from the HER. The effects resulting from the Proposed Development upon the historic landscape character will be assessed in the ES Chapter, following the methodology discussed below.

Table 4.13: Impacts Proposed to be Scoped Out of the Assessment for the Historic Environment

Impact	Justification
Construction and Decommissioning	
Effects on Historic Landscape Character	The Proposed Development will be largely retained within the existing field layout. This will therefore have no impact upon the existing land subdivision of the area. The decommissioning of the solar farm would reinstate the present agricultural use of the land, which reflects the post-medieval enclosure process.
Operation and Maintenance	
Buried archaeological remains	As yet unconfirmed but potentially surviving buried archaeological remains could be affected during ground disturbance which would occur as part of the construction and decommissioning phase of the Proposed Development, no such effects are predicted during the operation phase.

Proposed Assessment Methodology

- 4.4.16 The methodology to be used to assess the impacts of elements to be scoped in is described below.

Legislation and Policy

- 4.4.17 The legislation and policy relevant to heritage assets includes:
- The Ancient Monuments and Archaeological Areas Act (1979) provides for the maintenance of a schedule of archaeological remains of the highest significance, affording them statutory protection. It does not refer to the 'setting' of Scheduled Monuments.
 - The National Heritage Act 1983 is one of four Acts of Parliament providing for the protection and management of the historic environment, including the establishment of the Historic Monuments & Buildings Commission, now Historic England.
 - The Planning (Listed Buildings and Conservation Areas) Act 1990 places a duty the Local Planning Authority (or, as the case may be, the Secretary of State) to afford due consideration to the preservation of Listed Buildings and their settings (under Section 66(1)), and Conservation Areas (under Section 72(2)), in determining planning applications. It does not apply to the setting of Conservation Areas.
 - The Hedgerows Regulations 1997 provide protection for 'important' hedgerows within the countryside, controlling their alteration and removal by means of a system of statutory notification.
 - In the National Policy Statement for Energy (EN-3) 2023, Section 2.10 considers solar photovoltaic generation, with Paragraphs 2.10.99-1.10.111 relating to cultural heritage. The document recognises the generally limited nature of below ground impacts and that solar developments can include positive effects, such as the protection of buried archaeological remains.
 - The National Planning Policy Framework which sets out a policy framework to conserve and enhance the historic environment.
 - Braintree District Council Local Plan sets out strategic planning policies and an overall strategy to manage development in the district.

Relevant Guidance

- 4.4.18 Guidance documents relevant to the assessment of the historic environment and of the eventual impacts deriving from the implementation of the proposed development include:
- Conservation Principles (Historic England 2008) .
 - Good Practice Advice in Planning: Note 2 (GPA2): Managing Significance in Decision-Taking in the Historic Environment (Historic England 2015) .
 - Historic England Advice Note 7: Local Heritage Listing: Identifying and Conserving Local Heritage (Historic England 2026, third edition)
 - Good Practice Advice in Planning: Note 3 (GPA3): The Setting of Heritage Assets, Second Edition (Historic England 2017) .
 - Chartered Institute for Archaeologists' Standard and guidance for historic environment desk-based assessment (2020) .

- The Institute of Environmental Management and Assessment (IEMA), Institute of Historic Building Conservation (IHBC) and Chartered Institute for Archaeologists (CIfA) Principles of Cultural Heritage Impact Assessment in the UK (2021) .
- Archaeology and Solar Farms, Good Practice Guide: t (ALGAO *et al.* 2026) .

Assessment of Effects

- 4.4.19 Potential impacts of the proposed development on the historic environment will be assessed in accordance with the method set out in **section 3.5** of this EIA Scoping Report. Where significant adverse effects are likely to occur, suitable mitigation or compensatory measures will be identified.
- 4.4.20 The approach to mitigation is set out in **section 3.5** of this EIA Scoping Report. Embedded (primary and tertiary) measures will be taken into account within the assessment. Where secondary measures are proposed, an assessment of the residual effect with these in place will also be presented.

Receptor Sensitivity

- 4.4.21 The sensitivity criteria to be used for the assessment of impacts on the historic environment are outlined in **Table 4.14**.

Table 4.14: Sensitivity Criteria

Sensitivity	Criteria
Very High	• World Heritage Sites and heritage assets of acknowledged international importance, or that can contribute significantly to acknowledged international research objectives.
High	Historic assets or groups of assets that can contribute substantially to acknowledged national research objectives. Such asset would consist of: • Scheduled Monuments, Registered Historic Landscapes. Grade I and II* Registered Parks/Gardens. Grade I and II* Listed Buildings or other Listed Buildings that can be shown to have exceptional qualities in their fabric or associations not adequately reflected in their Listing grade, or undesignated structures of clear national importance. • Conservation Areas containing very important buildings.
Medium	Heritage assets, or groups of assets (including archaeological remains), that contribute to regional research objectives. Such asset could consist of: • Grade II Registered Parks/Gardens. • Grade II Listed Buildings or historic buildings which can be shown to be of comparable significance. • Conservation Areas containing important buildings which contribute significantly to their historic character, or historic townscapes with important historic integrity.
Low	Heritage assets, including archaeological remains, displaying limited evidential, historic, aesthetic, or communal value. Such asset could consist of: • Heritage assets, or groups of assets, that contribute to a limited degree to regional research objectives. • Locally listed buildings and unlisted buildings of modest quality in their fabric or historical association.

Sensitivity	Criteria
	Assets whose values are compromised by poor preservation or survival of contextual associations to justify inclusion into a higher grade.
Negligible	Heritage assets or groups of assets that cannot appreciably contribute to acknowledged regional research objectives. Such asset would consist of: - Buried remains with very little or no surviving archaeological interest. - Buildings and designated landscapes of no architectural or historical note.

Impact Magnitude

- 4.4.22 The magnitude of impact upon the historic environment is defined as the change resulting from development that affects the significance or values of an asset. The classification of the magnitude of change is rigorous and based on consistent criteria. This takes account of such factors as the physical scale and type of disturbance anticipated and whether features or evidence would be lost that are fundamental to their historic character and integrity. Changes may be 'adverse' or 'beneficial'.
- 4.4.23 Depending on the nature of the change and the duration of the Proposed Development, effects can be 'temporary and/or reversible' or 'permanent and irreversible'. Change in itself, however, may not necessarily be harmful. For example, judgements (such as Paragraph 45 of the judgement by Lindblom J in R (Forge Field Society) v. Sevenoaks DC [2014] EWHC 1895 (Admin)) have clarified that in the context of the Planning (Listed Buildings and Conservation Areas) Act 1990 'preserving' means doing 'no harm'; and does not necessarily mean 'no change'. Similarly, Historic England's Conservation Principles (English Heritage, 2008) defines 'preserve' as 'to keep safe from harm'.
- 4.4.24 This will include the consideration of such issues as: which, and how many, elements of a are affected; whether the change physically modifies the asset or whether it comprises changes in visual aspects, noise or access that would alter its setting; and whether the change in the value of an asset will be adverse or beneficial.
- 4.4.25 In terms of the assessment of effects arising from change to an asset's setting, the guidance provided by Historic England in GPA3 makes clear that "analysis of setting is different from landscape assessment. While landscapes include everything within them, the entirety of very extensive settings may not contribute equally to the significance of a heritage asset, if at all."
- 4.4.26 The magnitude of impact on each individual heritage asset is assessed using the criteria in **Table 4.15**. Changes may be adverse or beneficial.

Table 4.15: Magnitude of Impact Criteria

Magnitude of impact		Definition
High	Adverse	Total changes to or loss of valued components of the assets, including arising from alteration to the setting of heritage assets
	Beneficial	Development will deliver a positive contribution and / or better reveal the values of designated heritage assets of recognised international importance such that an application should be treated very favourably
Medium	Adverse	Changes to the asset, including to valued settings, such that it is noticeably and adversely / negatively modified.

Magnitude of impact		Definition
	Beneficial	Development will deliver a positive contribution and / or better reveal the values of designated heritage assets (or assets worthy of designation) such that an application should be treated favourably
Low	Adverse	Changes to the asset, including arising from alteration to valued settings, such that it is slightly altered. Changes such that the significance of the asset is slightly affected.
	Beneficial	Development will deliver a better contribution and / or better reveal the values of a heritage asset
Negligible	Adverse	Minor, inconsequential changes to archaeological remains, historic building elements or their settings.
No Change	-	No changes to archaeological remains, historic building elements or their settings.

Significance of Effect

- 1.1.1 The significance of the effect will be determined by taking into account the sensitivity of the receptor and the magnitude of the impact. The matrix to be used in order to determine the significance of effect is presented in **Table 3.4** of this EIA Scoping Report.
- 1.1.2 Where a range of significance levels is presented, the final assessment for each effect will be based upon expert judgement. For the purpose of the assessment, any effects with a significance level of moderate or above will be considered to be significant. Where the magnitude of impact is 'no change', no effect would arise.
- 1.1.3 In all cases, the evaluation of receptor sensitivity, impact magnitude and significance of effect will be informed by professional judgement and underpinned by narrative to explain the conclusions reached.

Cumulative Effects and Inter-related Effects

- 1.1.4 The CEA for the historic environment will follow the general methodology set out in **Section 3.6** of this EIA Scoping Report. The historic environment chapter of the ES will also consider inter-related effects arising from the Project, including potential project lifetime and receptor-led effects. This assessment will be undertaken in accordance with the standard industry guidance and approach, as outlined in **section 3.7** of this EIA Scoping Report.

4.5 Agriculture and Soils – ES Chapter

Introduction

- 4.5.1 This section of the EIA Scoping Report sets out the proposed scope and methodology for the assessment of effects on agricultural soils. This includes consideration of published and site-specific data in relation to the Proposed Development potential effects on the agricultural use of the Site and soils as a resource (including Best and Most Versatile (BMV)).

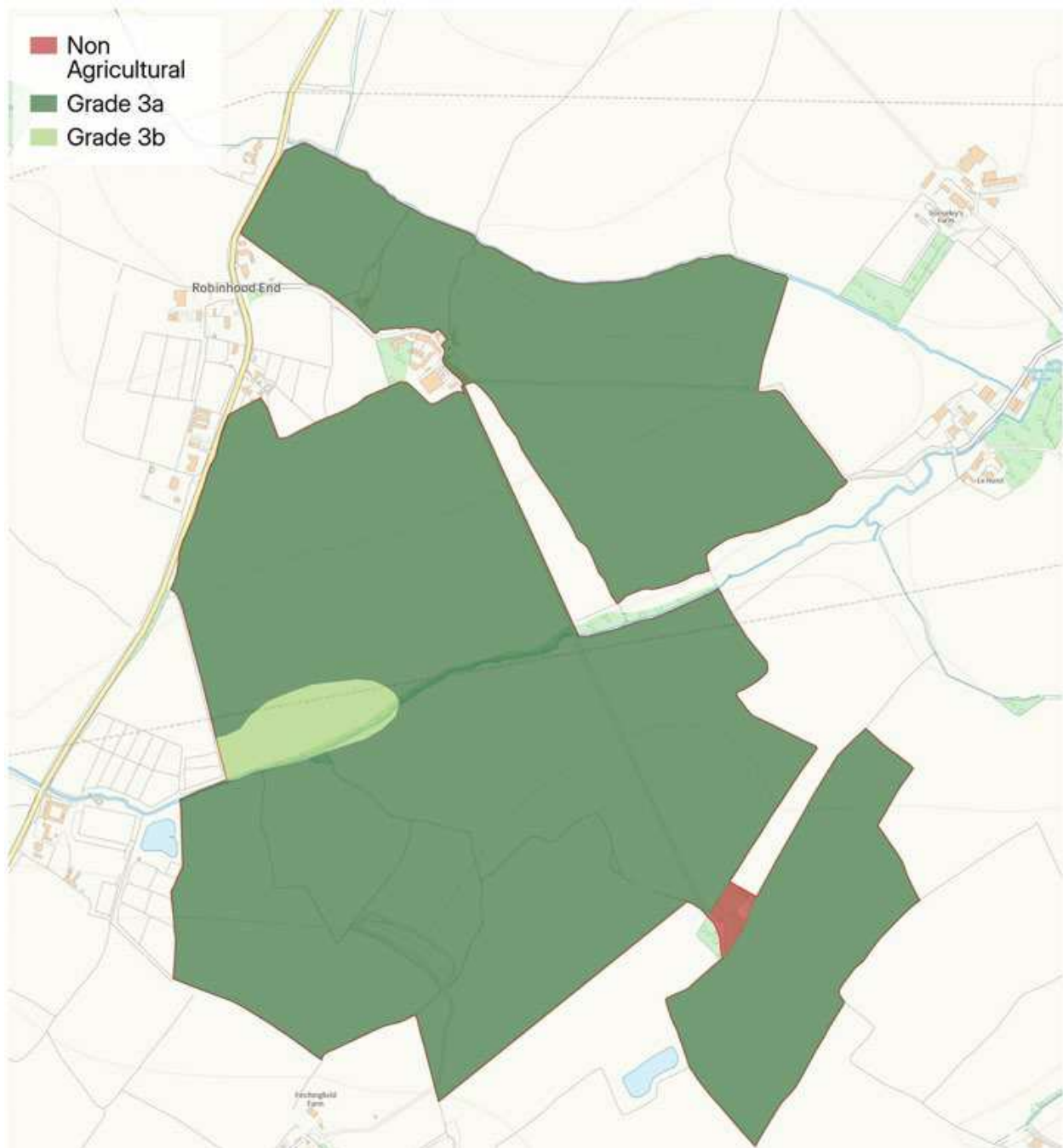
Proposed Study Area for Assessment

- 4.5.2 The proposed study area is confined to the Site boundaries. However, due regard will also be given to published mapping within a 250m radius to provide additional context. This buffer is considered to be proportionate as it captures any adjacent land that could be directly or indirectly influenced by the Proposed Development.

Baseline Environment

- 4.5.3 An outline of the baseline environment for agricultural land and soils based upon published and site specific data is provided below.
- 4.5.4 The British Geological Survey (BGS) 1:50,000 scale map shows the superficial deposits to comprise of Lowestoft Formation (Glacial Till) with the underlying bedrock geology comprising the White Chalk.
- 4.5.5 The soils on the Site are identified as being 411d HANSLOPE Association, slowly permeable calcareous clayey soils.
- 4.5.6 The Natural England Register of Post 1988 Agricultural Land Classification maps indicates that the Site has not yet been surveyed.
- 4.5.7 A site-specific Agricultural Land Classification survey was undertaken by Amet Property Ltd (March 2026) which identified the limiting factors to largely be soil wetness, a combination of the climatic regime, soil water regime and texture of the top 25cm of the soil. Based on the survey results, the land is graded as follows:
- Grade 3a: 103.1Ha (97.28%)
 - Grade 3b: 2.5Ha (2.34%)
 - Non-Agricultural: 0.4Ha (0.38%)
 - The areas of each classification are shown on **Figure 10**.
- 4.5.8 The Agricultural Land Classification Survey is provided at Appendix C.

Figure 10: Agricultural Land Classification Survey of the Site



Proposed Data Sources

Desk Study

4.5.9 The data sources proposed to be used for the assessment of agricultural soils are summarised below:

- 1:50,000 scale British Geological Survey mapping;
- 1:250,000 National Soil Mapping;
- Defra MAGIC mapping;
- OS mapping/ LiDAR;
- Met Office climatic data;
- Environment Agency (EA) Flood Map for Planning; and,
- Historic land use and aerial photography.

Site-specific Surveys

4.5.10 A site specific ALC survey has been conducted based on a 100m grid. This density of survey is in accordance with that recommended by Natural England for planning applications with the results used to inform this Scoping Report.

4.5.11 A site specific Agricultural Land Impact Assessment will also be undertaken. This will consider:

- Agricultural land – the prevalence of ‘best and most versatile’ (BMV) land, determined via the aforementioned ALC survey;
- Soil resources – the sensitivity of soils to handling determined via desktop data and the results from the ALC survey; and,
- Farm business – potential impact(s) on farm businesses of land loss, land severance, infrastructure damage and disruption to activities determined via interviews with landowners and tenants.

Embedded Mitigation Measures

4.5.12 At this stage, the following measures are proposed to be adopted, in accordance with the mitigation hierarchy (avoid, prevent, reduce or offset). These measures may evolve (and be further refined) as the design and EIA process progresses.

4.5.13 A site-specific Soil Management Plan will be written by a qualified soil scientist. The report will include quantification of potential soil resources to be excavated/ stored/ re-used (based on available data), means of soil protection from compaction damage; remedial measures to remove damage; depth and method of soil stripping during cable laying; soil handling advice and timings.

4.5.14 The solar PV module layout, rows and width of field margins will be designed to accommodate machinery and equipment that will be required to top/ harrow and seed grass to allow improved grassland management to be carried out on the site. The depth of buried cables and protection/positioning of above ground cabling will also be considered where agricultural machinery and livestock will be operating.

4.5.15 Construction and decommissioning activities to be undertaken in accordance with best practice measures and in line with a CEMP. The CEMP will be prepared in accordance

with an oCEMP, which will be submitted as part of the application for development consent.

- 4.5.16 The oCEMP will include measures to ensure the proper handling, storage, and use (or, if required, disposal) of soils during the construction phase.

Proposed Scope of the Assessment

- 4.5.17 Potential impacts that are proposed to be scoped into the assessment are set out in **Table 4.16**

Impacts Proposed to be Scoped Out

- 4.5.18 Potential impacts that are proposed to be scoped out of the assessment and the justification are set out in **Table 4.17**.

Table 4.16: Impacts Proposed to be Scoped into the Assessment for agriculture and soils

Impact	C	O	D	Description	Proposed Approach to Assessment
Construction of solar arrays and substation on BMV land.	✓	×	×	Agricultural land resources: Best and most versatile agricultural land (i.e. Grades 1, 2 and 3a on MAFF's 1988 Agricultural Land Classification (ALC) system) is considered to be a limited national resource, is given special consideration in national policy, and can be considered to be of higher sensitivity than land in Grades 3b, 4 and 5. The loss of lower quality land is considered of lower importance under the planning system of England.	Published and site specific information will be used to identify potential effects and their significance. Where required, mitigation including the appropriate storage of soils will be considered such that the Site may be restored to its original use at the end of the Proposed Development design life.
Restoration of Soils and BMV land	×	×	✓	The appropriate restoration of soils at the end of the Proposed Development's life will be of key importance in returning the Site to its former agricultural use.	The soil management plan will consider decommissioning and set out how to best restore the Site which will be considered within the assessment of potential effects.

Table 4.17: Impacts Proposed to be Scoped Out of the Assessment for Agriculture and soils

Impact	Justification
Construction and Decommissioning	
Construction of cables on BMV land	Temporary effect mitigated by restoration of soils after installation.
Physical damage to soils	Measures detailed in the Outline Soil Management Plan (oSMP) will mitigate potential impacts. Soil resources: soil is complicated as it is a multi-functional resource, able to support crops, habitat areas, mitigate flood risk etc. However, the main requirement in regard to solar PV sites is that the soil is capable of supporting its prior land-use at the end of a Scheme's lifetime, typically arable farming. The production and adherence to a site-specific Soil Management Plan will ensure soil resources are protected and the effect of the Proposed Development is negligible
Operation and Maintenance	
Agricultural soils	Once operational, the soils on site will not be adversely affected. If anything, it is considered likely that a break from intensive agriculture may prove beneficial to the soil structure and health.

Proposed Assessment Methodology

- 4.5.19 The assessment methodology proposed to be used for the impacts proposed to be scoped in is described below.

Legislation and Policy

Legislation

- Agriculture Act (England) Regulations 2020;
- Overarching National Policy Statement for Energy (EN-1);
- National Policy Statement for Renewable Energy Infrastructure (EN-3);
- National Policy Statement for Electricity Networks Infrastructure (EN-5);
- National Networks National Planning Statement, for Planning Act 2008; and,
- National Planning Policy Framework (NPPF).

Relevant Guidance

- Institute of Environmental Management & Assessment Land Soil in Environmental Impact Assessment (EIA) Guidance (2022).

Assessment of Effects

- 4.5.20 Potential impacts of the Proposed Development on agricultural soils will be assessed in accordance with the method set out in **section 3.5** of this EIA Scoping Report. Where significant adverse effects are likely to occur, suitable mitigation or compensatory measures will be identified.
- 4.5.21 The approach to mitigation is set out in **section 3.5** of this EIA Scoping Report. Embedded (primary and tertiary) measures will be taken into account within the assessment. Where secondary measures are proposed, an assessment of the residual effect with these in place will also be presented.
- 4.5.22 The assessment is designed to consider the effect of the Scheme on two sensitive receptors: soil resources and agricultural land quality (namely best and most versatile land).
- 4.5.23 The assessment will be carried out during the construction phase and decommissioning phase. The criteria are set out in the tables below.
- 4.5.24 For the purposes of this assessment, thresholds for the magnitude of impact adopted in this assessment set out below are based on a threshold of the permanent change of 20ha of best and most versatile (BMV) agricultural land within Article 18(1), paragraph (y) of the Table to the Town and Country Planning (Development Management Procedure) Order 2015. These thresholds are recommended as the area of BMV land change that triggers a requirement to consult with Natural England, implying that this is also the point at which the change is no longer considered to be 'not significant'. Therefore, for the purposes of this assessment:
- A total permanent loss/gain of BMV land which exceeds 20ha is considered significant;
 - A loss of BMV which is either temporary and reversible after construction, or which falls below the 20ha threshold, is considered as being not significant; and,
 - A loss of non-BMV land is considered as being not significant.

Receptor Sensitivity

4.5.25 The sensitivity criteria to be used for the ecological assessment are outlined in **Table 4.18**.

Table 4.18: Sensitivity Criteria

Sensitivity	Criteria
High	Agricultural land grades 1 & 2. Soil resource: permeable coarse loamy and medium loamy soils, or other soils capable of supporting valuable habitats.
Medium	Agricultural land subgrade 3a. Soil resource: Fine textured or sandy topsoil not capable of supporting valuable habitats and/or mixed permeable and slowly permeable subsoils.
Low	Agricultural land subgrade 3b and grades 4 and 5. Soil resource: Damaged or contaminated soils and/or slowly permeable subsoils.

Impact Magnitude

4.5.26 The criteria for defining the magnitude of impacts to be used in the assessment of geology, hydrogeology and ground conditions are outlined in **Table 4.19**.

Table 4.19: Magnitude of Impact Criteria

Magnitude of impact		Definition
High	Adverse	Agricultural land: Loss of >80ha of best and most versatile land. Soil resource: Loss of >80% of topsoil resources and insufficient topsoil protected for on-site uses. Subsoil compaction of >10% of Site.
	Beneficial	Soil resource: Improvement in >80% of topsoil and subsoil profile through cessation of intensive agricultural practices.
Medium	Adverse	Agricultural land: Loss of 20-80ha of best and most versatile land. Soil resource: Loss or irreversible damage to 50-80% of topsoil resources. Compaction of 5-10% of subsoils.
	Beneficial	Soil resource: Improvement in 50-80% of topsoil and subsoil profile through cessation of intensive agricultural practices.
Low	Adverse	Agricultural land: Loss of 5-20ha of best and most versatile land. Soil resource: Loss or irreversible damage to <50% of topsoil resources. Compaction of <5% of subsoils.
	Beneficial	Soil resource: Improvement in <80% of topsoil and subsoil profile through cessation of intensive agricultural practices.
Negligible	Adverse	Agricultural land: Loss of <5ha of best and most versatile land. Soil resource: Only minor disturbance of soils within the site.

Significance of Effect

- 4.5.27 The significance of any impact will be assessed as either 'major' (i.e. significant), 'moderate', 'minor' or 'negligible' according to the magnitude of the impact of the Scheme and the sensitivity of the receptor, and either short, medium or long-term.
- 4.5.28 The significance of the effect will be determined by taking into account the sensitivity of the receptor and the magnitude of the impact. The matrix to be used in order to determine the significance of effect is presented in **Table 3.4** of this EIA Scoping Report.
- 4.5.29 Where a range of significance levels is presented, the final assessment for each effect will be based upon expert judgement. For the purpose of the assessment, any effects with a significance level of moderate or above will be considered to be significant. Where the magnitude of impact is 'no change', no effect would arise.
- 4.5.30 In all cases, the evaluation of receptor sensitivity, impact magnitude and significance of effect will be informed by professional judgement and underpinned by narrative to explain the conclusions reached.

Cumulative Effects and Inter-related Effects

- 4.5.31 The CEA for agriculture and public rights of way will follow the general methodology set out in **section 3.6** of this EIA Scoping Report. The agriculture and public rights of way chapter of the ES will also consider inter-related effects arising from the Project, including potential project lifetime and receptor-led effects. This assessment will be undertaken in accordance with the standard industry guidance and approach, as outlined in **section 3.7** of this EIA Scoping Report.

4.6 Cumulative Effects

- 4.6.1 As set out in **section 3.6** of this report, each topic chapter will consider the potential for significant cumulative effects with other major proposed developments. Other developments considered within the cumulative assessment include those that are:
- under construction;
 - permitted, but not yet implemented;
 - submitted, but not yet determined; and
 - identified in the Development Plan (and emerging Development Plans - with appropriate weight being given as they move closer to adoption) recognising that much information on any relevant proposals will be limited.
- 4.6.2 An indicative list of other proposed developments and allocations to be considered within the EIA process is provided at **Appendix A** of this report. Comments are invited on the content of this list and the extent to which allocations from neighbouring authorities may need to be considered.
- 4.6.3 Each topic author will review the overall list of developments and allocations and identify those relevant to their topic. The chapter will include an assessment of the potential for significant cumulative effects with the relevant developments.

5 Topics Proposed to be Scoped Out of the ES

5.1 Introduction

5.1.1 To ensure proportionality throughout the EIA process, emphasis has been placed on the scoping process. It is key that scoping is tailored to the scale of the Proposed Development, its spatial and temporal scope and the likely impact of the Proposed Development on the environment. Only topics that are likely to result in significant environmental effects should be included. Therefore, it is proposed that the following topics are not included in the scope of the ES:

- Planning policy context;
- Material assets;
- Daylight, sunlight and microclimate;
- Heat and radiation;
- Geology, hydrogeology and ground conditions;
- Glint and Glare;
- Traffic and Transport;
- Hydrology and Flood Risk;
- Population and human health;
- Risk of major accidents and disasters;
- Air quality;
- Noise and vibration;
- Climate change;
- Socio-economics; and
- Waste

5.2 Planning Policy Context

5.2.1 The ES will provide an overview of relevant legislative and planning policy context within each topic chapter. The assessment will have regard to national and local policy documents, where relevant. However, it is not proposed to include a separate chapter on Planning Policy Context in the ES. The guidance on EIA from the Department for Communities and Local Government 'EIA: A Guide to Good Practice and Procedures' (DCLG, 2006) (paragraph 155) states that there is no requirement to provide chapters on planning and sustainability in Environmental Statements. A separate Planning, Design and Access Statement will be submitted with the planning application.

5.3 Material Assets

5.3.1 The EIA Regulations refer to 'material assets', including architectural and archaeological heritage. The phrase 'material assets' has a broad scope, which may include assets of human or natural origin, valued for socio-economic or heritage reasons. Material assets are in practice considered across a range of topic areas within an ES, in particular the socio-economic and historic environment chapters. Historic environment is proposed to be included within the ES (see **Table 4.1**), while socio-economics impacts are proposed to be

scoped out as no significant effects are likely (see below). Therefore, no separate consideration of material assets is considered necessary.

5.4 Daylight, Sunlight and Microclimate

- 5.4.1 The Proposed Development comprises low-profile solar panel arrays mounted on frames, together with limited ancillary infrastructure, within an open agricultural setting. As such, the Proposed Development would not introduce substantial built form, high buildings or enclosed structures capable of materially affecting daylight or sunlight availability to surrounding receptors. Any impacts on local microclimatic conditions would be limited to the immediate footprint of the arrays and would not be of a scale or nature likely to give rise to significant environmental effects.
- 5.4.2 Taking the above information into account, it is proposed that impacts in relation to daylight, sunlight and microclimate are scoped out of the EIA process. Note that a glint and glare assessment is proposed as a technical appendix (see **section 4.6**).

5.5 Heat and Radiation

- 5.5.1 The Proposed Development is a solar PV development and, as described above and in the screening request, the main infrastructure is inert in nature.
- 5.5.2 The design of the Proposed Development does not include overhead lines and all cables will be buried underground, as such exposure to Electromagnetic Fields (EMF) from these sources can reasonably be expected to be within standards for health protection, as EMF strength reduces rapidly with distance, often requiring only a few meters separation between the source and receptor, to reach background levels. This issue is not considered further within this Scoping Report.
- 5.5.3 Taking the above information into account, it is proposed that impacts in relation to heat and radiation are proposed to be scoped out of the EIA process.

5.6 Geology, Hydrogeology and Ground Conditions

- 5.6.1 The Proposed Development would be located on agricultural land and will not include development of a scale or nature likely to result in significant effects on geology, hydrogeology and ground conditions. The Proposed Development will include piled solar arrays, compacted aggregate access tracks and small areas of hardstanding for the substation, inverters and transformers and spare parts container. These elements are expected to cause minimal disturbance to the soil. Any disturbance will be managed through best practice construction methods, including soil separation and reinstatement where required, which are to be set out in an outline Soil Management Plan which will form a technical appendix to the Agricultural Land and Soils chapter and will also accompany the planning application.
- 5.6.2 The Site is totally contained within Source Protection Zone (SPZ) 3 (total catchment area) and is not located within any designated geological site, thus the Proposed Development is not likely to result in any significant effects on hydrogeological or geological receptors.
- 5.6.3 During construction, spillage would be controlled through well-established construction control measures, implemented through the CEMP (with equivalent measures in place during decommissioning). There is no potential for further impacts to occur during operation.
- 5.6.4 Any effects on underlying geology or hydrogeological conditions are therefore expected to be limited, temporary and reversible, with no indication of a significant constraint arising from the baseline site conditions. Taking the above information into account, it is proposed

that impacts in relation to geology, hydrogeology and ground conditions are scoped out of the EIA process for the Proposed Development.

5.7 Glint and Glare

- 5.7.1 The Proposed Development comprises solar PV arrays, which have the potential to generate glint and glare under certain lighting conditions. In principle, this may be relevant to aviation and other sensitive receptors.
- 5.7.2 The Proposed Development is located within a rural context and is well screened by mature hedgerows and interspersed trees. The Site lies at some distance from the nearest receptors and the design will incorporate layout and orientation considerations to minimise any potential for impacts. Any predicted impacts towards the ground-based infrastructure (roads and dwellings) can therefore, likely be solved with relatively simple mitigation strategies – the most common being the provision of screening (e.g. hedgerow planting) at the panel boundaries to obstruct views of potentially reflecting panels. Where views of reflecting panels are obstructed, no effects can be experienced. Other solutions such as layout modification can be considered but are rarely required in practice for glint and glare effects on ground-based receptors from fixed solar panels.
- 5.7.3 A ‘Solar Photovoltaic Glint and Glare Assessment’ will comprise a technical appendix to the Landscape and Visual ES chapter, considering the effect of the solar panel areas upon receptors identified in this document. The assessment will include the detailed modelling of the solar panels relative to surrounding roads and dwellings with potential views of the Site, and the high-level assessment of approach paths. The findings of the glint and glare assessment will inform the landscape and visual chapter. No standalone chapter in respect of glint and glare is considered necessary.

5.8 Traffic and Transport

- 5.8.1 Once operational, the solar farm would be operated remotely and would only require visits for maintenance and monitoring. Operational traffic would be very limited (in the region of 3 to 4 light vehicles per month). There is no potential for operational traffic to result in significant effects on the local road network, its users or nearby sensitive receptors.
- 5.8.2 Construction and decommissioning impacts would be temporary and of short duration. Construction traffic is expected to be low, with an average of no more than 20 HGV trips per day (10 arrivals plus 10 departures), with a peak of approximately 30 trips per day (15 arrivals and departures).
- 5.8.3 Essex County Council’s (ECC’s) Highways Team response to the screening report did not require an environmental impact assessment for traffic and transport and set out that a Transport Statement would be required instead. The planning application will therefore be accompanied by a Transport Statement which will assess the impact of construction vehicles on the transport network and local environs.
- 5.8.4 In addition, construction traffic would be managed and mitigated through a Construction Traffic Management Plan (CTMP), which would also be prepared to accompany the planning application. This would ensure that routing and timings are agreed with the ECC and would contain all the relevant measures necessary to provide suitable mitigation for all transport related matters. Equivalent measures would be put in place during the decommissioning phase. Therefore, significant effects during construction and decommissioning are unlikely.
- 5.8.5 With respect to the strategic road network, National Highways has advised that the Proposed Development is unlikely to result in significant environmental effects.

- 5.8.6 No ES chapter is therefore considered necessary because the Transport Statement and CTMP will set out all relevant transport related matters and mitigation and no significant residual transport related impacts are envisaged.
- 5.8.7 The CTMP submitted alongside the planning application will set out specific measures to protect and safeguard those using the PRoW network within and near to the site. These measures are to include temporary signage, the use of Banksmen to manage vehicles where they are crossing, travelling along the alignment of, or near to PRoW and speed restrictions for vehicles moving within the Site. Similar provisions are anticipated to be in place for decommissioning. The application of the measures therein are considered sufficient to demonstrate that significant effects to PRoW users are not likely.

5.9 Hydrology and Flood Risk

- 5.9.1 The Site is predominantly located within Flood Zone 1, although a band of Flood Zones 2 and 3 is present where Toppesfield Brook (a Main River) crosses the Site on an east - west alignment, and there is an area of surface water flood risk to the north of Field 5 associated with the watercourse along that field boundary.
- 5.9.2 The Proposed Development has been designed so that all principal elements are located within Flood Zone 1, with the exception of the required crossing of the Main River and associated flood zones to connect the site parcels. Other than this exception, the only elements located in Flood Zones 2 or 3 would be landscape and biodiversity planting for biodiversity net gain and/or other environmental enhancement areas.
- 5.9.3 There would be no operational surface water discharge associated with the Proposed Development, other than site runoff, which would be managed through the outline drainage strategy. The outline drainage strategy would include measures to control the quality as well as the rate of runoff from the Site. Construction impacts on water quality, such as spillage, would be controlled through well-established pollution control measures, implemented through a CEMP. An oCEMP will be provided with the application.
- 5.9.4 The layout and design of the Proposed Development have been developed to limit potential impacts on surface water runoff, including a 'dripping' design that avoids the concentration of water into sheets and promotes infiltration beneath the panels. In addition, the extent of permanent hardstanding would be limited, with ancillary infrastructure is temporary or removable in nature. As such, the Proposed Development is not expected to materially alter existing drainage patterns or give rise to significant flood risk or hydrological effects.
- 5.9.5 A Flood Risk Assessment (based on an outline drainage strategy) and an oCEMP will be provided and will be included as appendices to the ES. No ES chapter is therefore considered necessary.

5.10 Air Quality

- 5.10.1 As set out in **section 4.6**, once operational, the solar farm would be operated remotely and would only require visits for maintenance and monitoring. Operational traffic would be very limited (in the region of 3 to 4 light vehicles per month). There is therefore no potential for operational traffic to result in significant effects on air quality. Given the nature of the Proposed Development, there would be no other air quality emissions during the operational phase.
- 5.10.2 Construction traffic is expected to average no more than 20 HGV trips per day, with a peak of approximately 30 trips per day. This would not exceed the criteria for assessment detailed in the Institute of Air Quality Management (IAQM) (UK) Planning Guidance (IAQM,

2017). Construction traffic would be managed through the CTMP, which would ensure that routing and timings are agreed with the relevant highway authority.

- 5.10.3 Construction dust would be controlled through a dust management plan, implemented through the CEMP, which will include the inclusion of wheel washing facilities among other measures. The dust control measures would be in accordance with the IAQM guidance (IAQM, 2024).
- 5.10.4 Equivalent measures would be put in place during the decommissioning phase. Therefore, significant effects during construction and decommissioning are unlikely.
- 5.10.5 Taking into account the above, no significant air quality effects are predicted and air quality is proposed to be scoped out of the EIA process.

5.11 Noise and Vibration

- 5.11.1 Solar farms are generally very low-noise developments, with operational activity limited to occasional maintenance visits and the operation of electrical plant.
- 5.11.2 The main sources of noise during operation are:
 - Central inverters associated with the solar panels (although this technology choice emits less noise than the alternative of string inverters).
 - Substation equipment, primarily comprising a transformer to connect to the grid.
- 5.11.3 The locations of central inverters and the substation have been considered as part of the design of the Proposed Development, to increase the separation distance between noise generating equipment and noise sensitive receptors.
- 5.11.4 In relation to operational noise, a preliminary assessment has been undertaken using the current layout for the Proposed Development. The initial results predict specific sound levels below 25 decibels (dB) $L_{Aeq,T}$ at the nearest sensitive receptors.
- 5.11.5 While background sound levels in the area are low, the predicted low specific sound levels indicate that operational noise effects would be negligible. This is based on guidance provided within BS 4142:2014+A1:2019.
- 5.11.6 Any construction and decommissioning noise and vibration effects would be temporary, localised and capable of being controlled through standard best practice measures secured via the oCEMP.
- 5.11.7 On this basis, noise and vibration are not considered likely to give rise to significant environmental effects and are therefore proposed to be scoped out of the EIA process. A noise impact assessment report based on guidance within BS 4142:2014+A1:2019 will be prepared and submitted with the planning application.

5.12 Climate Change

- 5.12.1 The Proposed Development comprises renewable energy generation and is temporary in nature, with the Site to be restored to agricultural use at decommissioning. Any greenhouse gas emissions associated with construction and decommissioning phases would be limited and transient, while the operational phase would contribute to renewable electricity generation. Overall, therefore, the purpose of the Proposed Development is to result in a beneficial effects with regard to climate change.
- 5.12.2 A climate change chapter is proposed to be scoped out of the EIA process.

5.13 Socio-economics

- 5.13.1 The Proposed Development is not expected to generate significant long-term employment or service demand. During construction, it is anticipated that a number of full time equivalent jobs will be created and the Applicant would make a commitment to using local suppliers and contractors wherever possible, ensuring investment stays within the local community and directly benefits local businesses. Whilst beneficial, this would be temporary, short term and limited, and decommissioning effects will be similar in scale and nature. On this basis, no significant socio-economic effects are anticipated.
- 5.13.2 Taking the above information into account, it is proposed that impacts in relation to socio-economics are scoped out of the EIA process.

5.14 Population and Human Health

- 5.14.1 The guidance on the scoping of human health in EIA (IEMA., 2022) has been considered when determining the likelihood of significant human health effects. At this stage it is anticipated that the Proposed Development would not result in significant effects in relation to human health that would require a standalone ES chapter. Accordingly, human health is proposed to be scoped out as a chapter.
- 5.14.2 The following factors have been considered in reaching this conclusion.
- Landscape and visual impact assessment: consideration of potential impacts on visual amenity and landscape character, including views from Public Rights of Way, transport routes, recreational users and residential receptors will be considered within the proposed assessment of landscape and visual effects (see **section 4.2**).
 - Traffic and transport: as set out in **section 4.6**, no significant environmental effects are anticipated in relation to changes in traffic flow. Nevertheless, a Transport Statement will be produced and included as part of the application. In addition, construction traffic would be managed and mitigated through a Construction Traffic Management Plan (CTMP), which would also be prepared to support the planning application.
 - Ground conditions: As set out in **section 5.6**, the Site is agricultural in use and there is no known contaminated land that could be mobilised during construction of the Proposed Development. No significant effects on construction workers or other off-site receptors are anticipated.
 - Water quality and flood risk assessment: As set out in **section 4.6**, no significant effects on water quality or flood risk are anticipated. Nevertheless, a Flood Risk Assessment will be provided as part of the ES. Construction impacts would be controlled through the CEMP.
 - Noise and vibration: As set out in **section 4.6**, no significant effects on noise or vibration are anticipated. Initial noise assessment has indicated that operational noise effects would be negligible at the nearest sensitive receptors. Construction impacts would be controlled through the CEMP. No significant sources of vibration are proposed.
 - Air quality: As set out in **section 5.7**, no significant effects on air quality are anticipated. There are no sources of operational emissions, other than the very limited operational traffic flow. No significant operational traffic effects are predicted. Construction dust would be controlled through a dust management plan, implemented through the CEMP.
 - Socio-economics, tourism and recreation: As set out in **section 5.10**, no significant effects in terms of employment changes, education and skills, economic effects, and access to tourist attractions are predicted.

5.15 Risk of Major Accidents and Disasters

- 5.15.1 The EIA Scoping Report has not included a standalone section on major accidents and disasters. It is considered that major accidents and disasters can be scoped out through the EIA process by incorporating good design and adhering to best practice guidelines.
- 5.15.2 Major accidents and disasters are defined in IEMA Guidance (IEMA, 2020) which provides the following definitions:
- Major Accident: an event *“that threatens immediate or delayed serious environmental effects to human health, welfare and/or the environment and requires the use of resources beyond those of the client or its appointed representatives (i.e., contractors) to manage”*;
 - Disaster: a *“man-made/external hazard (such as an act of terrorism) or a natural hazard (such as an earthquake) with the potential to cause an event or situation that meets the definition of a major accident”*.
- 5.15.3 Given the nature of the Proposed Development, it is not considered to give rise to credible accident or disaster scenarios beyond those addressed through standard design, regulatory compliance and construction management controls.
- 5.15.4 A description of how accidents and disasters have been considered in the design of the Proposed Development will be outlined in the Project Description chapter of the ES. This will include, for example:
- management of the potential for traffic accidents through design of any new junctions from the highway;
 - management of flood risk through the design strategy; and
 - management of construction impacts, such as spillage through the CEMP.
- 5.15.5 The risk of major accidents or disasters occurring as a result or in relation to the Proposed Development are considered to be very low and the topic is to be scoped out of the EIA process as a standalone chapter, with coverage to be included in the Project Description chapter and topic assessments, where relevant. This is considered to be appropriate and proportionate in the circumstances.

5.16 Waste

- 5.16.1 The Proposed Development will comprise standard solar farm infrastructure, much of which is temporary or removable, including the arrays, cabling, fencing, compounds and hardstanding. Temporary compounds would be removed as part of phased completion and surfaces will be reinstated at decommissioning. All waste and material generated during decommissioning of the Proposed Development would be recycled, re-used or disposed of at an approved landfill location in accordance with the Decommissioning Strategy that would be prepared prior to the decommissioning phase commencing.
- 5.16.2 Site waste management measures will be set out in the oCEMP with further information provided in the detailed CEMP which is to be prepared prior to the commencement of construction of the Proposed Development. The CEMP will set out how waste generated during construction of the Proposed Development will be managed, including the safe, efficient and lawful disposal of site waste. The detailed CEMP will identify the type and quantities of waste to be generated during construction of the Proposed Development and describe how these are to be separated to facilitate effective disposal and recycling.
- 5.16.3 Following decommissioning there will be significant potential for recycling many of the materials used in the Proposed Development. Solar panels are almost entirely made up of glass, aluminum, and silicon which can all be separated and recycled. Since January

2014, solar panels in the UK have been covered by The Waste Electrical and Electronic Equipment Regulations 2013 (as amended), which require recycling of the panels at the end of their operational life. The Applicant is a member of the PV Cycle UK take back scheme for this purpose.

- 5.16.4 Waste generation is therefore expected to be limited to conventional construction and decommissioning waste streams, managed through standard best practice, and is not considered to require separate detailed EIA assessment. On this basis, it is proposed that impacts in relation to waste are scoped out of the EIA process for the Proposed Development.

6 Summary of Proposed Scope

6.1 Environmental Statement

Topics to be scoped in to the ES

- 6.1.1 This EIA Scoping Report has identified the potential for significant effects to arise from the construction, operation and decommissioning of the Proposed Development. The following specialist assessments are proposed to be included within the ES:
- Landscape and Visual Effects;
 - Ecology and Nature Conservation;
 - Historic Environment; and
 - Agriculture and Soils
- 6.1.2 Section 4 of this Scoping Report sets out in detail the proposed scope of these assessments. For the reasons set out in Section 4, it is proposed that a number of impacts can be scoped out of the topic chapters. **Table 6.1** below provides a summary of the main issues to be scoped out.

Table 6.1: Topics Proposed to be Scoped Out of Topic Chapters

Chapter Title	Sub-topic / Impact Scoped Out
Landscape and Visual Effects	Residential Visual Amenity Assessment (RVAA)
	Assessment of night-time effects associated with operational lighting
Ecology and Nature Conservation	Effects on locally designated sites (LWSs) where no impact pathway exists
	Broad-leaved woodland habitat loss
	Reptiles
	Brown hare
	Hedgehog
	Dormouse
	Invertebrates
	Invasive non-native flora (managed through embedded mitigation)
Historic Environment	Effects on buried archaeological remains during operation
	Effects on historic landscape character during decommissioning
Agriculture and Soils	Construction of underground cables on BMV land
	Physical damage to soils (managed through Outline Soil Management Plan and CEMP)
	Operational effects on agricultural soils

- 6.1.3 The proposed scope of assessment reflects the findings of the preliminary environmental review, available baseline information, consultation responses received to date and the evolving design of the Proposed Development.
- 6.1.4 The Applicant welcomes comments from Braintree District Council and consultees on the proposed scope, methodology and topics to be assessed as part of the EIA process. The scope will continue to be refined as further survey information becomes available and through ongoing consultation with stakeholders and technical consultees.

6.2 Standalone reports

- 6.2.1 The following reports will be submitted alongside the planning application:
- Planning, Design and Access Statement, incorporating a review of relevant policies;
 - Alternative Site Assessment;
 - Agricultural Land Classification Report;
 - Landscape and Ecological Management Plan;
 - Glint and Glare Assessment;
 - Tree Survey and Arboricultural Impact Assessment;
 - Transport Statement (including Access Strategy);
 - Outline CTMP;
 - Flood Risk Assessment and Outline Drainage Strategy;
 - Outline CEMP;
 - Noise Impact Assessment;
 - Planning, Design and Access Statement;
 - Statement of Community Involvement;
 - Heritage Desk Based Assessment;
 - Outline Soil Management Plan; and
 - Ground Contamination Report.
- 6.2.2 The detailed assessments for each of these topics will be undertaken in accordance with standard guidance and best practice.

7 References

- Amphibian and Reptile Groups of the United Kingdom (2010) ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index. ARGUK. Available at: <https://cieem.net/resource/arg-uk-advice-note-5-great-crested-newt-habitat-suitability-index/> [Accessed July 2026]
- Andrews, R. (2013) The Classification of Badger (*Meles meles*) Setts in the UK: A Review and Guidance for Surveyors. Chartered Institute of Ecology and Environmental Management - In Practice 82: 27-31
- Association of Local Government Archaeological Officers (ALGAO), ClfA, FAME, Historic England and Historic England 2026 Archaeology And Solar Farms, Good Practice Guide: Advise for Developers, archaeological advisors, consultants and contractors
- Bat Tree Habitat Key (2018) Bat Roosts in Trees: A guide to identification and assessment for tree-care and ecology professionals. London: Pelagic Publishing Ltd
- Bird Survey & Assessment Steering Group. (2025) Bird Survey Guidelines for assessing ecological impacts. UK: Bird Survey & Assessment Steering Group. Available at: <https://birdsurveyguidelines.org> [Accessed July 2026]
- Braintree District Council (2022). Braintree District Local Plan 2033. Available at: [The Development Plan documents – Braintree District Development Plan – Braintree District Council](#). [Accessed July 2026]
- British Standards Institution (BSI) (2013) BS 42020: Biodiversity – Code of practice for planning and development. London: BSI. Available at: <https://knowledge.bsigroup.com/products/biodiversity-code-of-practice-for-planning-and-development> [Accessed July 2026]
- British Trust for Ornithology (BTO), Royal Society for the Protection of Birds (RSPB), Joint Nature Conservation Committee (JNCC), NatureScot, Natural England, Natural Resources Wales and Northern Ireland Environment Agency (2021) Birds of Conservation Concern 5: the status of birds in the UK, Channel Islands and Isle of Man. Thetford: British Trust for Ornithology. Available at: <https://www.bto.org/sites/default/files/publications/bocc-5-a5-4pp-single-pages.pdf> [Accessed July 2026]
- Chanin, P. (2003) Monitoring the Otter *Lutra lutra*. Conserving Natura 2000 Rivers Monitoring Series No. 10. Peterborough: English Nature.
- Chartered Institute for Archaeologists (ClfA), (2020) Standard and guidance for historic environment desk-based assessment
- Chartered Institute of Ecology and Environmental Management (CIEEM), Construction Industry Research and Information Association (CIRIA) and Institute of Environmental Management and Assessment (IEMA) (2016) Biodiversity Net Gain: Good Practice Principles for Development. Winchester/London: CIEEM/CIRIA/IEMA. Available at: <https://cieem.net/resource/biodiversity-net-gain-good-practice-principles-for-development/> [Accessed July 2026]
- Chartered Institute of Ecology and Environmental Management (CIEEM) (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Winchester: CIEEM. Available at: <https://cieem.net/resource/guidelines-for-ecological-impact-assessment-ecia/> [Accessed July 2026]
- Collins, J. (ed.) (2023) Bat surveys for professional ecologists: good practice guidelines. 4th edn. London: Bat Conservation Trust. Available at: <https://www.bats.org.uk/resources/guidance-for-professionals/bat-surveys-for-professional-ecologists-good-practice-guidelines-4th-edition>
- Council of Europe (1979) Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention). Bern: Council of Europe. Available at: <https://www.coe.int/en/web/bern-convention> [Accessed July 2026]

Dean, M., 2021. Water Vole Field Signs and Habitat Assessment: A Practical Guide to Water Vole Surveys. London: Pelagic Publishing Ltd.

Dean, M., Strachan, R., Gow, D., Andrews, R., Mathews, F. and Chanin, P. (2016) The water vole mitigation handbook (The Mammal Society Mitigation Guidance Series). London: The Mammal Society.

DEFRA (2019) Multi-Agency Geographic Information for the Countryside (MAGIC) [online] Available at: <https://magic.defra.gov.uk/> [Accessed July 2026]

DEFRA (2023) 25 Year Environment Plan. London: UK Government. Available at: <https://www.gov.uk/government/publications/25-year-environment-plan> [Accessed July 2026]

DEFRA (2024) The Statutory Biodiversity Metric User Guide. London: UK Government. Available at: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides> [Accessed July 2026]

DEFRA (2025) Protected species and development: advice for local planning authorities. London: UK Government. Available at: <https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications> [Accessed July 2026]

Department for Energy Security & Net Zero (2023) National Policy Statement for Renewable Energy Infrastructure (EN-3)

Department for Energy Security and Net Zero (2026) National Policy Statement for renewable energy infrastructure (EN-3), 2025. London: UK Government. Available at: <https://www.gov.uk/government/publications/national-policy-statement-for-renewable-energy-infrastructure-en-3-2025> [Accessed July 2026]

Department for Energy Security and Net Zero (2026) National Policy Statement for electricity networks infrastructure (EN-5), 2025. London: UK Government. Available at: <https://www.gov.uk/government/publications/national-policy-statement-for-electricity-networks-infrastructure-en-5-2025> [Accessed July 2026]

Department for Energy Security and Net Zero (2026) Overarching National Policy Statement for Energy (EN-1), 2025. London: UK Government. Available at: <https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1-2025> [Accessed July 2026]

Department for Environment, Food & Rural Affairs (DEFRA) (2023) Environmental Improvement Plan 2023. London: UK Government. Available at: <https://www.gov.uk/government/publications/environmental-improvement-plan> [Accessed July 2026]

Department for Levelling Up, Housing and Communities (2024) National Planning Policy Framework. London: UK Government. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [Accessed July 2026]

English Nature (2001) Great Crested Newt Mitigation Guidelines. Peterborough: English Nature. Available at: <https://cieem.net/resource/great-crested-newt-mitigation-guidelines/> [Accessed July 2026]

Essex County Council (2025). Environment Policy. Available at: [Environmental Policy](#). [Accessed July 2026]

Essex County Council (no date). Essex Green Infrastructure Strategy. Available at: [Essex Green Infrastructure Strategy](#) [Accessed July 2026]

Essex Local Nature Partnership (2025). Essex Local Nature Recovery Strategy. Available at: [Essex Local Nature Recovery Strategy](#). [Accessed July 2026]

Froglife (1999) Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife advice sheet 10. Halesworth: Froglife. Available at: https://www.wildcare.co.uk/media/wysiwyg/pdfs/froglife_advice_sheet_10_-_reptile_surveys.pdf [Accessed July 2026]

GovUK (2022). Habitats and species of principal importance in England. Available at: [Habitats and species of principal importance in England - GOV.UK](#). [Accessed July 2026]

GovUK (2024). Irreplaceable habitat. Available at: [Irreplaceable habitat - GOV.UK](#). [Accessed July 2026]

Highways England, Transport Scotland, Welsh Government, Department for Infrastructure (2020) Design Manual for Roads and Bridges (DMRB). LA 104, Environmental assessment and monitoring, Revision 1. Available at: LA 104 - Environmental assessment and monitoring. Accessed [July 2026].

Historic England (2015) Historic Environment Good Practice Advice in Planning Note 2 – Managing Significance in Decision-Taking in the Historic Environment

Historic England (2017) Historic Environment Good Practice Advice in Planning Note 3 – The Setting of Heritage Assets (second edition)

Historic England (formerly English Heritage) (2008) Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment

Historic England (formerly English Heritage) (2026) Local Heritage Listing: Identifying and Conserving Local Heritage

HM Government (2022) UK Climate Change Risk Assessment Available at: [UK Climate Change Risk Assessment 2022](#) Accessed [July 2026].

IEMA (2004) Guidelines for Environmental Impact Assessment.

IEMA (2015a) Environmental Impact Assessment Guide to Shaping Quality Development.

IEMA (2015b) Climate Change Resilience and Adaptation.

IEMA (2016) Environmental Impact Assessment Guide to Delivering Quality Development.

IEMA (2017) Delivering Proportionate EIA - A Collaborative Strategy for Enhancing UK Environmental Impact Assessment Practice. IEMA, Lincoln.

IEMA (2023) Effective Non-technical Summaries for Environmental Impact Assessment. IEMA, Lincoln.

IEMA (2024) Implementing the Mitigation Hierarchy from Concept to Construction.

Institute of Air Quality Management (2017) Planning for Air Quality. Available at: [air-quality-planning-guidance.pdf](#)

Institute of Air Quality Management (2024) Assessment of dust from demolition and construction. Available at: [Construction-Dust-Guidance-Jan-2024.pdf](#)

Institute of Environmental Management and Assessment (IEMA), Institute of Historic Building Conservation (IHBC) and Chartered Institute for Archaeologists (CIfA) (2021) Principles of Cultural Heritage Impact Assessment in the UK

ISEP (2025) The Use of Artificial Intelligence in Environmental Impact Assessment.

Lindblom J. (2014) *R (Forge Field Society and others) v Sevenoaks District Council* (2014) EWHC 1895 (Admin). Available at: <http://www.bailii.org/ew/cases/EWHC/Admin/2014/1895.html>

Met Office (2025) UKCP18. Available at: [UK Climate Projections \(UKCP18\) guidance - Met Office](#) Accessed [July 2026].

Ministry of Housing, Communities and Local Government (2024) National Planning Policy Framework. Available at: [National Planning Policy Framework - Guidance - GOV.UK](#) Accessed [July 2026].

Ministry of Housing, Communities and Local Government and Department for Levelling Up, Housing and Communities (2024) Planning Practice Guidance. Available at: [Planning practice guidance - GOV.UK](#) Accessed [July 2026].

Natural England (2022) Badgers: advice for making planning decisions. [online] GOV.UK. Available at: <https://www.gov.uk/guidance/badgers-advice-for-making-planning-decisions> [Accessed July 2026]

Reason, P.F. and Wray, S. (2023) UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Ampfield: CIEEM. Available at: <https://cieem.net/wp-content/uploads/2023/09/Bat-Mitigation-Guidelines-2023.pdf> [Accessed July 2026]

Solar Energy UK (2025) Solar Habitat 2025: Ecological trends on solar farms in the UK. Available at: <https://solarenergyuk.org/wp-content/uploads/2025/04/SEUK-Solar-Habitat-2025-3.pdf> [Accessed July 2026]

Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D. and Win, I. (2021) The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds*. 114. 723-747. Available at: <https://www.researchgate.net/publication/356717060> The status of our bird populations the fifth Birds of Conservation Concern in the United Kingdom Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain [Accessed July 2026]

Strachan, R., Moorhouse, T. and Gelling, M. (2011) Water vole conservation handbook. 3rd edn. Oxford: Wildlife Conservation Research Unit (WildCRU).

Town and Country Planning (Environmental Impact Assessment) Regulations 2017. (2017) Statutory Instrument 2017 No. 571. London: The Stationery Office.

UK Government (1979). Ancient Monuments and Archaeological Areas Act 1979

UK Government (1981) *Wildlife and Countryside Act 1981* (as amended). London: The Stationery Office. Available at: <https://www.legislation.gov.uk/ukpga/1981/69/contents> [Accessed July 2026]

UK Government (1990). Planning (Listed Buildings and Conservation Areas) Act 1990

UK Government (1992) Protection of Badgers Act 1992. London: The Stationery Office. Available at: <https://www.legislation.gov.uk/ukpga/1992/51/contents>

UK Government (2025) Planning and Infrastructure Act 2025. London: The Stationery Office. Available at: <https://www.legislation.gov.uk/ukpga/2025/34/contents/enacted> [Accessed July 2026]

UK Government (1997) The Hedgerow Regulations 1997. London: The Stationery Office. Available at: <https://www.legislation.gov.uk/uksi/1997/1160/contents> [Accessed July 2026]

UK Government (1997). The Hedgerows Regulations 1997

UK Government (2000) Countryside and Rights of Way Act 2000. London: The Stationery Office. Available at: <https://www.legislation.gov.uk/ukpga/2000/37/contents> [Accessed July 2026]

UK Government (2006) Natural Environment and Rural Communities Act 2006. London: The Stationery Office. Available at: <https://www.legislation.gov.uk/ukpga/2006/16/contents> [Accessed July 2026]

UK Government (2017) The Conservation of Habitats and Species Regulations 2017 (as amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019). London: The Stationery Office. Available at: <https://www.legislation.gov.uk/uksi/2017/1012/contents> [Accessed July 2026]

UK Government (2019) The Invasive Alien Species (Enforcement and Permitting) Order 2019. London: The Stationery Office. Available at: <https://www.legislation.gov.uk/uksi/2019/527/contents> [Accessed July 2026]

UK Government (2021) Environment Act 2021. London: The Stationery Office. Available at: <https://www.legislation.gov.uk/ukpga/2021/30/contents> [Accessed July 2026]

UKHab Ltd (2023) UK Habitat Classification Version 2.0. UK: UKHab Ltd. Available at: <https://www.ukhab.org/> [Accessed July 2026]

Appendices

Appendix A: Cumulative Developments

Application Reference	Distance	Address	Settlement	Decision	Application Notes	Submitted Date	Decision Date	Type
19/01139/AG R	0km	Thurstons Farm Robinhood End Toppesfield Essex	Toppesfield	Permission/ Approval Not Required	Application for prior notification of agricultural or forestry development - erection of portal frame steel barn and new road access.	26/06/2019	30/07/2019	Prior Approval
18/02248/AG R	0km	Thurstons Farm Robinhood End Toppesfield Essex	Toppesfield	Permission Not Required	Application for prior notification of agricultural or forestry development - erection of portal frame steel barn and new road access.	17/12/2018	04/03/2019	Prior Approval
UTT/26/1302 /FUL	6.5km	Land At Tewes Farm Thaxted Road Little Sampford Essex		Pending Decision	Proposed ground mounted solar PV array together with associated infrastructure, security fencing, CCTV, private and DNO substations, perimeter fencing, 132kV DNO HV compound, landscaping and on-site biodiversity net gain.	2026-05-29		Full Application, Renewable

Application Reference	Distance	Address	Settlement	Decision	Application Notes	Submitted Date	Decision Date	Type
23/02705/FU L	8.5km	Land Off Hill Lane Sturmer Essex	Sturmer	Granted	Development of a ground mounted solar farm, including energy storage, associated infrastructure, access, landscaping and grid connection cable.	2023-11-01	2024-12-04	Renewable App, Full Application
23/01413/FU L	10km	Land North Of Cutbush Farm Bakers Road Belchamp St Paul Essex	Belchamp	Granted	Installation and operation of a renewable energy generating station comprising ground-mounted photovoltaic solar arrays, together with switchgear container, inverter/transformer units, site access, internal access tracks, security measures, access gates, underground cabling, temporary construction compound and other ancillary infrastructure and landscaping and biodiversity enhancements	2023-05-31	2024-12-09	Renewable App, Full Application
DC/25/1027/FUL	13km	Land North Of Wales End Road Wales End Road CO10 8DE	Cavendish	Pending Decision	Planning application - proposed hybrid renewable energy scheme for the construction and operation of a solar farm and battery energy storage system (BESS), with associated works, equipment and necessary infrastructure	2025-06-26		Renewable App, Full Application

Application Reference	Distance	Address	Settlement	Decision	Application Notes	Submitted Date	Decision Date	Type
25/01325/SC R	15km	Greyhound Field Sudbury Road - Bulmer Tye - A131 Bulmer	Bulmer Tye	Not Applicable	Town & Country Planning Act 1990 (as amended), Town & Country Planning (Environmental Impact Assessment) Regulations 2017 - Construction , operation , and decommissioning of a Battery Energy Storage System (BESS) and associated infrastructure.	2025-06-12	2025-07-16	Renewable App, Screening Scoping EIA

Appendix B: Landscape and Visual Impact Assessment Methodology

Introduction

The purpose of the LVIA is to identify, predict and evaluate potential significant effects associated with the Proposed Development. Wherever possible, identified impacts are quantified, however the nature of LVIA requires interpretation by professional judgement. In order to provide a level of consistency to the assessment, the prediction of magnitude and assessment of significance of the residual landscape and visual impacts have been based on pre-defined criteria.

Distinction between landscape and visual effects

As set out in GLVIA3, paragraph 2.21, landscape and visual effects are assessed separately, although the procedure for assessing each is closely linked. A clear distinction has been drawn between landscape and visual effects as described below:

Landscape effects relate to the effects of the Proposed Development on the physical and perceptual characteristics of the landscape and its resulting character and quality.

Visual effects relate to the effects on views experienced by visual receptors (e.g. local residents, visitors, footpath users, road users etc) and on the change in views experienced by people.

Relevant Guidance

As a matter of best practice, the Landscape and Visual Impact Assessment (LVIA) methodology is based on the industry-relevant guidance described in the following documents:

Guidelines for Landscape and Visual Impact Assessment, Third Edition (Landscape Institute and Institute of Environmental Management and Assessment, 2013) (GLVIA3).

Technical Guidance Note-2024-01: Notes and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment, Third Edition (Landscape Institute, 2024).

Technical Guidance Note 02/21: Assessing landscape value outside national designations (Landscape Institute, May 2021).

Assessment Criteria and Assignment of Significance of Effects

The methodologies tailored for the assessment of this development are derived from GLVIA3 guidance, which sets out broad guidelines, “*a general consensus on methods and techniques*”, rather than detailed prescriptive methodologies. “*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.*” (GLVIA3, para 1.20).

The effects on the landscape resources or visual receptors (people) are assessed by considering the proposed change in the baseline conditions (the impact of the proposal) against the type of landscape resource or visual receptor (including the importance and sensitivity of that resource or receptor). These factors are determined through a combination of quantitative (objective) and qualitative (subjective) assessments using professional judgement.

The methodology is set out in detail below and summarised in Diagram 1.

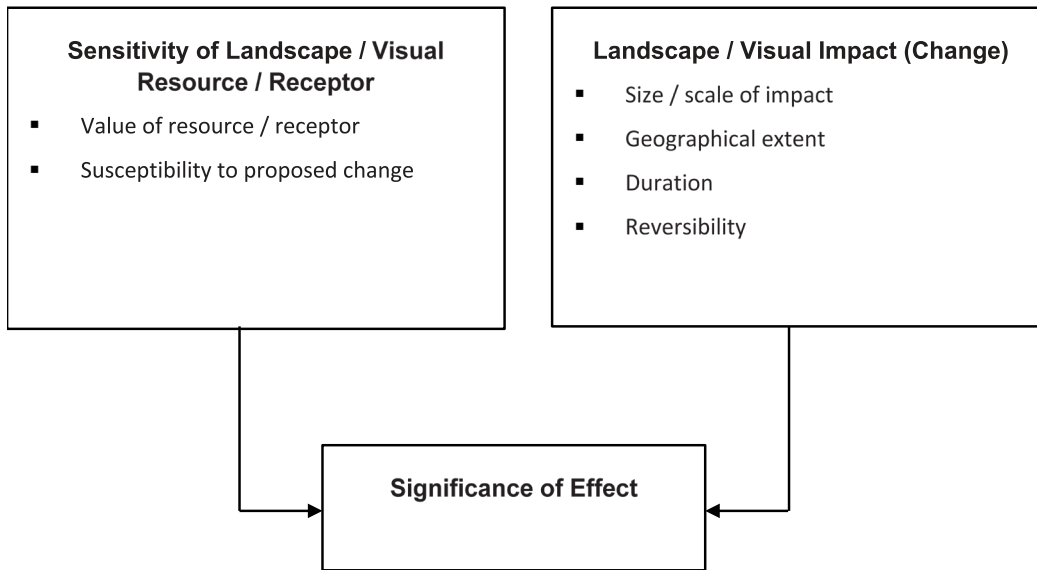


Diagram 1: LVIA Methodology Chart

Nature of Effect

As identified in the GLVIA3, landscape and visual effects are identified by establishing and describing the changes resulting from the different components of the development and the resulting effects on individual landscape or visual receptors. Assessment of the level of effects takes account of the nature of the effects (**'magnitude'**), as well as the nature of the receptors (**'sensitivity'**) and differentiates between them according to the phases (construction, operational and demolition) of the development in which they would occur (GLVIA3, Box 3.1, EIA significance terminology).

Direct and indirect effect

Effects are also defined as direct and indirect. Direct landscape effects relate to the host landscape and concern both physical and perceptual effects on the receptor.

Indirect landscape effects relate to those landscapes and receptors which are separated by distance or are remote from the development and therefore are only affected in terms of perceptual effects. The Landscape Institute also defines indirect effects as those which are not a direct result of the development but are often produced away from it or as a result of a complex pathway.

Visual effects are considered as direct effects, as the view itself may be directly altered by the Proposed Development.

Beneficial, Neutral or Adverse

The aim of the LVIA is to provide an objective assessment of the relationship between the Proposed Development and the landscape in which it would be located and seen. As part of this, it is also important to consider the nature of the proposed change in the context of the key characteristics of the landscape. Being a large-scale development added to the landscape, it is unlikely that a beneficial nature of effect would be found, but neutral effects could occur where it is considered the Proposed Development does not change the defining characteristics of the landscape and/or has been well absorbed/integrated into its surrounding context.

Generally, with the development of 'new' or large-scale infrastructure developments, a precautionary approach has been adopted, which assumes that landscape and visual effects are weighed on the adverse side of the planning balance. Unless it is stated otherwise, the effects considered in this assessment have been considered to be adverse.

Whether an effect is Beneficial, Neutral or Adverse is identified based on professional judgement. GLVIA3, indicates at paragraph 2.15 that this is a "*particularly challenging*" aspect of assessment, particularly in the context of a changing landscape.

The decision regarding the level of effect and the decision regarding whether an effect is beneficial or adverse are entirely separate.

Sensitivity / Susceptibility

Sensitivity is judged taking into account the component judgments about the value and susceptibility of the receptor.

The sensitivity of the landscape to a particular development considers the susceptibility of the landscape and its value. Landscape sensitivity often varies in response to both the type of development proposed and the particular site location, such that landscape sensitivity needs to be considered on a case-by-case basis. This should not be confused with '*inherent sensitivity*' where areas of the landscape may be referred to as inherently of 'high' or 'low' sensitivity. For example, a National Park may be described as inherently of high sensitivity on account of its designation, although it may prove to be less sensitive to particular development and/or of variable sensitivity across the geographical area of the National Park. Alternatively, an undesignated landscape may be of high sensitivity to a particular development regardless of the lack of local or national designation.

Sensitivity of landscape receptors

The sensitivity of a landscape receptor is a combination of "*judgements of their susceptibility to the type of change or development proposed and the value attached to the landscape*" (GLVIA3, para 5.39). For the purposes of this assessment, susceptibility and value of landscape receptors are defined as follows:

Landscape susceptibility: "*the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed change without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies*" (GLVIA3, para 5.40).

Value of the landscape resource/ receptor: "*The value of the Landscape Character Types or Areas that may be affected, based on review of designations at both national and local levels, and, where there are no designations, judgements based on criteria that can be used to establish landscape value; and, the value of individual contributors to landscape character, especially the key characteristics, which may include individual elements of the landscape, particularly landscape features, notable aesthetic, perceptual or experiential qualities, and combinations of these contributors*" (GLVIA3, para 5.44).

The sensitivity of the landscape resource/ receptor uses the definitions in Guidance Note GN 017: Landscape Sensitivity guidance for Wales (NRW, 2023) and is defined as very high, high, medium, low, or very low based on professional interpretation, combining judgements of their value attached to the landscape and susceptibility to the type of change or development proposed.

Landscape receptors include the different landscape character types or areas which may be affected by the Proposed Development, as well as landscape designations within the LVIA Study Area.

Landscape susceptibility is combined with landscape value to determine the overall sensitivity of the landscape receptor. Susceptibility and sensitivity are not the same therefore, in the context of LVIA. Table A1 below outlines how the criteria are applied to arrive at an assessment of susceptibility to change within the assessment.

Table A1: Criteria for the Assessment of Susceptibility to Change

Level	Typical Criteria
High	Key characteristics of the landscape are highly vulnerable to change. The nature of the development would result in substantial change in character.
Medium	Some of the key characteristics of the landscape are vulnerable to change. Although the landscape may have some ability to absorb some development, it is likely to cause some change in character
Low	Few of the key characteristics of the landscape are vulnerable to change. The landscape is likely to be able to accommodate development with only minor change in character.
Negligible	Key characteristics of the landscape are robust and would not be adversely affected by development.

Factors influencing the susceptibility of the landscape to change of the sort associated with the development include:

Enclosure: whether or not the landscape includes enclosing features. The presence of enclosing features may suggest a lower susceptibility.

Landform: Landform may be undulating, rolling or flat, and may display more or less variation in form / gradient. Featureless, convex or flat landscapes with an absence of strong topographical variety suggests a lower susceptibility, with very complex landforms exhibiting strong topographical variety at the other end of the scale.

Landscape pattern and complexity: including presence or absence of cultural pattern; time depth; landscape structure/fabric; enclosure patterns; and interplay of colour and texture. Simple, large-scale patterns (large conifer plantations, arable fields), and/or regularly disturbed, fragmented land covers are less susceptible to change. Intricate, varied patterns, and undisturbed consistent patterns of land cover or land use, and historic field patterns are more susceptible to change.

Settlement and human influence: including time depth, age, nature, form and level of settlement. The following tend to indicate a lower susceptibility to change: concentrated settlement pattern, presence of contemporary structures e.g. utility, infrastructure or industrial elements, and hard or eroded settlement edges. A higher susceptibility to change may be indicated by: dispersed settlement pattern; absence of modern development; presence of small scale, historic or vernacular settlement; and a porous / soft landscape edge with settlement well integrated with the landscape.

Condition: Landscapes with a low level of intactness with landscape elements in poor state of repair are considered to have a lower susceptibility to change; with, on the other hand, landscapes having a high level of intactness and a very good state of repair having a higher susceptibility to change.

Typicality and rarity: A lower susceptibility to change is associated with areas which have no rare features or a weak association with the key characteristics of the landscape. Conversely, a higher susceptibility to change is associated with areas which have rare features of regional importance or a very strong correspondence with the key characteristics of the landscape.

Perceptual aspects: such as tranquillity (including noise and lighting) and sense of remoteness. Areas which are not tranquil, having much human activity, noise and light, are considered to have a lower susceptibility to change and vice versa. Presence or proximity to human activity or modern development or industrial structures (e.g. utilities, infrastructure) decreases susceptibility, whereas

areas having a strong sense of remoteness; being either physically remote or having a perception of being remote, are considered to have a higher susceptibility to change.

Skylines: A visual component of landscape character but obviously interdependent with topography. Where the development has no relationship to the skyline, or the skyline is either not prominent / screened, or developed and/or otherwise cluttered the susceptibility to change is lower. Where there is a strong relationship to prominent, simple and undeveloped skylines, or skyline with important historic landmarks the opposite is the case.

Intervisibility: As with skylines, this is a visual component of landscape character but obviously interdependent enclosure. As might be expected, landscapes which are self-contained with restricted intervisibility have a lower susceptibility to change than landscapes which are extensively intervisible and part of a wider landscape.

Views and Landmarks: As with skylines and intervisibility, this is a visual component of landscape character but has some relationship to typicality and rarity. An area which contains no landmarks and is not a feature in local views is considered to have a lower susceptibility. On the other hand, a landscape which includes important landmarks or is important in views across a wide area has a higher susceptibility.

Landscape value

Assessment of value is concerned with the relative value attached to different landscapes by society. 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 or national or international scale.

Table 2 defines how criteria are applied to arrive at an assessment of landscape value for this project, which is derived from GLVIA3.

Table A2: Criteria for the Assessment of Landscape Value

Value	Typical Criteria	Typical scale	Typical examples
High	Excellent condition, high importance, scenic quality and rarity.	International,	World Heritage Site, National Parks,
		National	National Landscapes,
	No or limited potential for substitution	Regional	Registered Historic Parks and Gardens
Medium	Good Condition, medium importance, scenic quality and rarity	Regional,	Local landscape designations
	Some potential for substitution	Local authority, Local community	Undesignated but local value expressed
Low	Poor condition, low importance, scenic quality and rarity.	Local community	Areas identified as having some redeeming feature or features and / or possibly earmarked for improvement, as well as areas identified for recovery

Sensitivity is not readily graded into bands. However, descriptions of landscape susceptibility and value are set out in Table A3 below.

Table A3: Definitions of Landscape Sensitivity

Sensitivity	Typical Descriptors	
	Landscape Resource/Receptor Susceptibility	Landscape Resource/Receptor Value
Very High	Exceptional landscape quality, no or limited potential for substitution. Key elements / features well known to the wider public.	Nationally/internationally designated/valued landscape, or key elements or features of nationally/internationally designated landscapes.
High	Strong/distinctive landscape character; absence of landscape detractors.	Regionally/nationally designated/valued countryside and landscape features.
Medium	Some distinctive landscape characteristics; few landscape detractors.	Locally/regionally designated/valued countryside and landscape features.

Low	Absence of distinctive landscape characteristics; presence of landscape detractors.	Undesignated countryside and landscape features.
Negligible	Absence of positive landscape characteristics. Significant presence of landscape detractors.	Undesignated countryside and landscape features.

Sensitivity of visual receptors

Visual receptors are always people. The sensitivity of each visual receptor (the particular person or group of people likely to be affected at a specific viewpoint) “should be assessed in terms of both their susceptibility to change and in views and visual amenity and also the value attached to particular views” (GLVIA, para 6.31). For the purpose of this assessment, susceptibility and value of visual receptors are defined as follows:

Visual susceptibility: “*The susceptibility of different visual receptors to changes in views and visual amenity is mainly a function of: The occupation or activity of people experiencing views at the particular locations; and the extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations*” (GLVIA, para 6.32).

Value of views: Judgements made about the value of views should take account of: “*recognition of the value attached to particular views, for example in relation to heritage assets, or through planning designations; and, indicators of value attached to views by visitors, for example through appearances in guidebooks or on tourist maps, provision of facilities for their enjoyment (such as parking places, sign boards or interpretive material) and references to them in literature or art...*” (GLVIA, para 6.37).

Sensitivity is not readily graded in bands and GLVIA notes, with regards to visual sensitivity, that the division of who may or may not be sensitive to a particular change “*is not black and white and in reality, there will be a gradation in susceptibility to change*” (GLVIA, para 6.35). In order to provide both consistency and transparency to the assessment process, however, Table A4, below defines the criteria which have guided the judgement as to the intrinsic susceptibility and value of the resource/receptor and subsequent sensitivity to the Proposed Development.

Table 3: Definitions of Visual Sensitivity

Definition		
Landscape resource and receptors	Resource/receptor susceptibility	Resource/receptor value
Very High	Exceptional landscape quality; absence of landscape/seascape detractors; no or limited potential for substitution. Key elements/features well known to the wider public.	Internationally/nationally designated landscapes, or key elements, or features of internationally/nationally designated landscapes.
High	Strong/distinctive landscape character; relatively free of landscape detractors.	Nationally/regionally designated landscape areas or features.
Medium	Some distinctive landscape characteristics; presence of	Regionally/locally designated/valued

	landscape/seascape detractors.	landscape areas and features.
Low	Absence of distinctive landscape characteristics; unavoidable presence of landscape detractors.	Undesignated landscape areas and features.
Negligible	Absence of positive landscape characteristics. Significant presence of landscape/seascape detractors.	Undesignated/non-valued landscape and features.
Visual receptors	Receptor susceptibility	Receptor value
Very High	Observers, drawn to a particular view, including those who have travelled from around Britain and overseas to experience the views.	Judgements made about the value of views should take account of: <i>'recognition of the value attached to particular views, for example in relation to heritage assets, or through planning designations; and, indicators of value attached to views by visitors, for example through appearances in guidebooks or on tourist maps, provision of facilities for their enjoyment (such as parking places, sign boards or interpretive material) and references to them in literature or art...'</i> (GLVIA3, para 6.37)
High	Observers on the public rights of way network in the countryside are more sensitive to visual change.	
Medium	Observers enjoying the countryside from vehicles on quiet/promoted routes or pedestrians on less scenic/urban rights of way are moderately sensitive to visual change.	
Low	Observers in vehicles or people involved in outdoor activities where attention is not focused on landscape are less sensitive to visual change.	

here the sensitivity of a particular receptor is judged to be in between the above categories, or it varies with location it is expressed as negligible to low, low to medium, medium to high or high to very high.

Magnitude of Impact

Magnitude of impact on landscape resources and receptors

The magnitude of impact or change affecting landscape receptors depends on the size or scale, geographical extent of the area influenced and its duration and reversibility. These factors are described below:

Size or scale: *“The extent of the existing landscape elements that will be lost, the proportion of the total extent that this represents and the contribution of that element to the character of the landscape...; the degree to which aesthetic or perceptual aspects of the landscape are altered either by removal of existing components of the landscape or by addition of new ones...”* and, *“whether the effect [impact] changes the key characteristics of the landscape, which are critical to its distinctive character”* (GLVIA, para 5.49).

The size and scale levels, criteria and typical descriptions are included in **Table A5** below.

Table A5: Size or scale of landscape change

Level	Feature/Element	Aesthetic/Perceptual aspect	Key characteristics/overall character
Large	Total or substantial loss or large-scale damage to landscape features resulting in the integrity of the landscape being compromised.	Change wholly or largely alters an aesthetic/ perceptual aspect, such that it becomes difficult/ impossible to appreciate when considered against the baseline.	Loss of or changes to the critical key characteristics of the landscape, resulting in a change to the overall landscape character.
Medium	Partial loss or medium scale damage to landscape features resulting in a partial change to the element/feature which may in some cases diminish its overall integrity.	Change is such that the development has an influence upon an aesthetic/ perceptual aspect but said aspect remains appreciable.	Partial loss or small changes to the key characteristics of the landscape but not resulting in an obvious change to
Small	Slight loss or small scale damage to landscape features or the host landscape with its integrity remaining intact.	Change has little tangible effect upon an aesthetic/ perceptual aspect.	Minor changes to key characteristics which result in no or little change to the overall landscape character.
Very small	Minimal loss to landscape features or the host landscape largely unchanged.	Change has a largely imperceptible effect upon aesthetic/perceptual aspects of the landscape receptor.	Key characteristics intact with minimal change to the overall landscape character.

Geographical extent: Distinct from scale or size, this factor considers the geographical area over which the landscape impacts will be felt, it might, for example, be a moderate loss of landscape receptors or character over a large area, or a large loss of receptors or character over a very localised area. At para 5.50 GLVIA3 notes that *“in general effects [impacts] may have an influence at the following scales, although this will vary according to the nature of the project and not all may be relevant on every occasion: at the site level within the development site itself; at the level of the immediate setting of the site; at the scale of the landscape type or character area within which the proposal lies; and, on a larger scale, influencing several landscape types or character areas.”* For the purposes of this LVIA, the assessment considers the impact of the Proposed Development on the published landscape character areas, both at local and national level, i.e. the third and fourth landscape scales.

The geographical extent of landscape change is included in **Table A6** below.

Table A6: Geographical extent

Level	Typical descriptions
Large	The effects may influence several landscape types/ character areas.
Medium	The effects may influence the landscape type/character area within which the development is located.
Small	The effects may influence the immediate setting of the site.
Very small	The effects may influence the development site only.

Duration and reversibility: Duration is typically categorised as short, medium or long-term. GLVIA explains that as there are no standard lengths of time within these categories, the assessment must state what these are and why these have been chosen (GLVIA, para 5.51). Reversibility is described as “a judgement about the prospects and practicality of the particular effect being reversed in, for example, a generation” (GLVIA, para 5.52). Projects can be considered to be permanent (irreversible), partly reversible or fully reversible. For the purposes of this assessment the Proposed Development is considered to be irreversible.

The duration of an effect and its reversibility are linked but separate consideration of the criteria for defining these are listed below in tables A7 and A8.

Table A7: Duration

Level	Typical descriptions
Short-term	0-2 years
Medium-term	2-5 years
Long-term	5+ years

Table A8: Reversibility

Level	Typical descriptions
-------	----------------------

Reversible	Change can be wholly or largely reversed. For example, the removal of a solar farm development following decommissioning.
Partially reversible	Change is partially reversible. For example, the restoration of a quarry to something similar to the baseline.
Irreversible	Change cannot realistically be reversed, i.e. it is permanent.

Magnitude of impact on visual receptors

As with the magnitude of landscape impacts, the magnitude of impact or change affecting visual receptors depends on the size or scale, geographical extent of the area influenced and its duration and reversibility. These factors are described below:

Size or scale: Judgements need to take account of: *“the scale of the change [impact] in the view with respect to the loss or addition of features in the view and changes in its composition, including the proportion of the view occupied by the proposed development; the degree of contrast or integration of any new features or changes in the landscape with existing or remaining landscape elements and characteristics in terms of form, scale and mass, line, height, colour and texture; and, the nature of the view of the proposed development, in terms of the relative amount of time over which it will be experienced and whether views will be full, partial or glimpses”* (GLVIA, para 6.39).

The size and scale levels and typical descriptions are included in **Table A9** below.

Table A9: Size or scale of change in views

Level	Typical descriptions
Large	The proposed development may result in extensive changes to the existing view (including the loss of existing characteristic features and/or introduction of new discordant landscape features); and/or A change to an extensive proportion of the view; and/or Views where the proposed development would become the dominant landscape feature or contrast heavily with the current scene. Little or no scope for adequate mitigation.
Medium	Changes will result in alteration to the view but do not fundamentally change its characteristics; Changes that would be immediately visible but not be the key features of the view. Partial mitigation is present or possible.
Small	Changes which would not result in a change to the composition of the view Changes that would only affect a small portion of the view or introduce new features that could be screened. Partial or full mitigation is present or possible.

Geographical extent: This will vary from viewpoint to viewpoint and will reflect: *“the angle [orientation] of view in relation to the main activity of the receptor; the distance of the viewpoint from*

the proposed development; and, the extent of the area over which the changes [impacts] would be visible” (GLVIA, para 6.40).

The geographical extent is determined by the indicative criteria set out in **Table A10** below.

Table A10: Extent of geographical change in views

Level	Typical descriptions
Large	Changes where the proposed development is located in the main focus of the view; and/or at close range; and/or over a large area.
Medium	Changes where the proposed development is located obliquely to the main focus of the view; and/or at medium range; and/or over a narrow area.
Small	Changes where the proposed development is located on the periphery of the main focus of the view; and/or at long range; and/or over a small area.

Duration and reversibility of visual effects: As with landscape impacts, duration should be categorised as short, medium or long-term and projects considered to be permanent (irreversible), partially reversible or fully reversible (GLVIA, para 6.41). **Tables** above can also be used to illustrate the criteria for defining the duration and reversibility of visual effects.

Assessment of magnitude of impact on landscape and visual resources

For landscape and visual resources, a professional judgement based on a combination of the identified factors above in terms of size and scale, geographical extent, duration and reversibility informs the assessment of the magnitude of impact.

Magnitude of impact has been classified on a four-point scale (Large, Medium, Small and Negligible). The definitions of terms relating to the magnitude of impact are set out in **Table A11**, below.

Table A11: Example Definitions of Magnitude of Impact

Magnitude of Impact	Typical Descriptors	
	Landscape Resource	Visual Resource
Large	Total loss or addition or/very substantial loss or addition of key elements/features/patterns of the baseline i.e., pre-development landscape and/or introduction of dominant, uncharacteristic elements with the attributes of the receiving landscape.	Complete or very substantial change in view, dominant involving complete or very substantial obstruction of existing view or complete change in character and composition of baseline, e.g., through removal of key elements.
Medium	Partial loss or addition of or moderate alteration to one or more key elements/features/patterns of the baseline i.e., pre-development landscape and/or introduction of elements that may be prominent but may not necessarily be substantially	Moderate change in view: which may involve partial obstruction of existing view or partial change in character and composition of baseline, i.e. pre-development view, through the introduction of new elements or removal of

	uncharacteristic with the attributes of the receiving landscape.	existing elements. Change may be prominent but would not substantially alter scale and character of the surroundings and the wider setting. Composition of the views would alter. View character may be partially changed through the introduction of features which, though uncharacteristic, may not necessarily be visually discordant.
Small	Minor loss or addition of or alteration to one or more key elements/features/patterns of the baseline i.e., pre-development landscape and/or introduction of elements that may not be uncharacteristic with the surrounding landscape.	Minor change in baseline, i.e. pre-development view, – change would be distinguishable from the surroundings whilst composition and character would be similar to the pre-change circumstances.
Negligible	Very minor loss or addition of or alteration to one or more key elements/features/patterns of the baseline i.e., pre-development landscape and/or introduction of elements that are not uncharacteristic with the surrounding landscape approximating to a ‘no-change’ situation.	Very slight change in baseline, i.e. pre-development view, – change barely distinguishable from the surroundings. Composition and character of view substantially unaltered.
No Change	No loss, alteration, or addition to the receiving Landscape resource	No alteration to the existing view

Significance of effects

It is recognised that new development will lead to some landscape and visual effects. However, it should be stressed that not all landscape and visual effects arising will be significant.

GLVIA3 explains, at paragraph 5.55, that a staged approach can be adopted when assessing landscape significance “susceptibility to change and value can be combined into an assessment of sensitivity for each receptor, and size/scale, geographical extent and duration and reversibility can be combined into an assessment of magnitude for each effect. Magnitude and sensitivity can then be combined to assess overall significance.”

Within this assessment, the assessment of significance has taken the following into account (as appropriate):

- reference to regulations or standards;
- reference to best practice guidance;
- reference to policy objectives;
- reference to criteria, for example designations or protection status;
- outcomes of consultation to date; and

- professional judgement based on local / regional / specialist experience.

Significance varies depending on the receptor's sensitivity and the magnitude of impact of the project. The distance to the development can be a major factor in determining the magnitude of the impact. Those resources or receptors closer to the project are likely to experience a greater significance of effects than those further away.

A significant effect would not necessarily mean that the effect is unacceptable in planning terms. What is important is that the likely effects of any proposal are transparently assessed and understood in order that the determining authority can bring a balanced and well-informed judgement to bear when making any decision. This judgement should be based upon weighing up the benefits of the proposal against the anticipated effects, both positive and negative.

Effects are assessed as being adverse, neutral or positive. The judgements regarding the significance of effect and that relating to whether an effect is beneficial or adverse are entirely separate. The assessment of whether an effect is positive, neutral or adverse is based on professional judgement having regard to the relevant objective factors.

The matrix, at **Table A12**, has been used to guide the assessment of effects. Where the matrix provides a choice of level of effects, e.g., Minor to Moderate, the assessor has exercised professional judgement in determining which of the levels is more appropriate.

Table A12: Assessment of Significance of Effects Matrix

Sensitivity	Magnitude of Impact				
	No change	Negligible	Small	Medium	Large
Negligible	No change	Negligible	Negligible to Minor	Negligible to Minor	Negligible to Minor
Low	No change	Negligible to Minor	Negligible to Minor	Minor	Minor to Moderate
Medium	No change	Negligible to Minor	Minor	Moderate	Moderate to Major
High	No change	Negligible to Minor	Minor to Moderate	Moderate to Major	Major
Very high	No change	Minor	Moderate to Major	Major to Substantial	Substantial

The significance of effect on landscape, views and visual amenity has been described according to the five-point scale shown in the above matrix (Substantial, Major, Medium, Minor, Negligible or Neutral). A description of these terms is provided in **Table A13**, below.

Table A13: Definitions of Significance Criteria

Magnitude	Typical Descriptors	
	Landscape Resource	Visual Resource
Substantial	Where proposed changes would be uncharacteristic and/or would	Where proposed changes would be uncharacteristic and/or would

	significantly alter a landscape of exceptional landscape quality (e.g., internationally designated landscapes), or key elements known to the wider public of nationally designated landscapes (where there is no or limited potential for substitution nationally).	significantly alter a view of remarkable scenic quality, within internationally designated landscapes or key features or elements of nationally designated landscapes that are well known to the wider public.
Major	Where proposed changes would be uncharacteristic and/or would significantly alter a valued aspect of (or a high quality) landscape.	Where proposed changes would be uncharacteristic and/or would significantly alter a valued view or a view of high scenic quality.
Moderate	Where proposed changes would be noticeably out of scale or at odds with the character of an area.	Where proposed changes to views would be noticeably out of scale or at odds with the existing view.
Minor	Where proposed changes would be at slight variance with the character of an area.	Where proposed changes to views, although discernible, would only be at slight variance with the existing view.
Negligible	Where proposed changes would have an indiscernible effect on the character of an area.	Where proposed changes would have a barely noticeable effect on views/visual amenity.
No Change	No discernible loss or alteration to landscape/seascape character, features or elements.	No part of the Proposed Development is discernible.

The emphasis in LVIA is on identification and reporting of significant environmental effects. The determination of levels of significance requires the application of professional judgement and experience to gauge the balance of variables which, in every instance, are given different weight according to the site and its surroundings in terms of specific considerations.

The LVIA implements a staged approach, combining the individual judgements made under the different contributing criteria. Sensitivity of the receptors has to be determined first, which means defining and selecting sensitive receptors upon which the magnitude of change is to be assessed. The LVIA does not include any landscape and visual receptors of negligible sensitivity, meaning that people with no interest in their environment are not included in the assessment.

Each effect is evaluated on a case-by-case basis. The matrix above provides general guidance on the relationship between magnitude of change and sensitivity of receptor.

The landscape or visual effects above 'moderate' are considered to be equivalent to a significant effects and everything below not significant. Moderate effects may or may not be significant, depending on the particular circumstances arising and professional judgement. In this instance justification will be provided in the receptor assessment.

Where intermediate ratings are given, e.g. "moderate / minor," this indicates an effect that is less than moderate but more than minor, rather than one which varies across the range. In such cases, the higher rating will always be given first; this does not mean that the impact is closer to that higher rating but is done to facilitate the identification of the more significant impacts within tables. Intermediate judgements may also be used for judgements of magnitude and sensitivity.

Cumulative Effects Assessment

A cumulative landscape or visual effect simply means that more than one type of development is present or visible within the landscape. *“In most cases the focus of the cumulative assessment will be on the additional effect of the project in conjunction with other developments of the same type”* (GLVIA, para 7.10).

Distinction between landscape and visual effects

Cumulative effects are assessed on the same landscape and visual receptors as the assessment for the proposed development against the baseline.

Cumulative landscape effects are those effects that can impact on either the physical fabric or character of the landscape, or any special values attached to it; and

Cumulative visual effects are those effects that can be caused by combined visibility, which occurs where the observer (visual receptor) is able to see two or more developments from one viewpoint and/or sequential effects which occur when the observer must move to another viewpoint to see different developments.

Landscape and visual receptors that are considered to receive effects of Low-negligible and Negligible magnitude (both localised and overall) from the proposed development are not included in the cumulative assessment, as an effect of such low magnitude manifestly adds nothing or very little regardless of the effects of other developments.

Tiered approach

The cumulative effects are assessed as the ‘*additional*’ effects of the proposed development on top of the cumulative baseline (GLVIA, para 7.18). A ‘*combined*’ cumulative assessment considers the addition of all unbuilt schemes, including the proposed development, over and above the existing baseline.

Both ‘*additional*’ and ‘*combined*’ cumulative effects are considered; however, the assessor has not undertaken the LVIA for the other schemes and cannot therefore make a fully informed judgement on combined effects (LI TGN 2024/01 Clarification 7(3)). Therefore, those effects related to existing development and those under construction are considered as certain; effects related to development with planning consent are considered as likely. Development sites for which there is a submitted planning application are considered as uncertain.

The Cumulative Effects Assessment (CEA) applies a tiered approach in assigning certainty to other existing and, or approved development (from UK Government website):

Tier 1

Other existing and, or approved development

- under construction
- permitted applications under the Planning Act or other regimes but not yet implemented
- submitted applications under the Planning Act or other regimes but not yet determined
- all refusals subject to appeal procedures not yet determined.

Tier 2

- Other existing and, or approved development
- projects on the Planning Inspectorate’s programme of projects.

Tier 3

- Other existing and, or approved development

- projects on the Planning Inspectorate’s programme of projects where a scoping report has not been submitted
- identified in the relevant Development Plan and emerging Development Plans, with appropriate weight given as they near adoption, recognising that there will be limited information available on the relevant proposals
- identified in other plans and programmes, as appropriate, which set the framework for future development consents or approvals, where such development is reasonably likely to come forward.

A decreasing level of detail is likely to be available from Tier 1 to Tier 3.

Where other existing and, or approved developments are expected to be completed before construction of the proposed NSIP and the effects are fully determined, effects arising from them are considered as part of the baseline and are considered as part of both the construction and operational assessment.

Where the effects of other existing and, or approved development under construction are not yet fully determined, these have been considered in the CEA.

Both scenarios provide an understanding of the different levels of cumulative effects around how cumulative developments are brought forward.

Operational and consented developments are treated as being part of the landscape and visual baseline, i.e., it is assumed that consented schemes will be built except for occasional exceptions where there is sufficient reason to assume that they will not be constructed.

Developments which have been refused at appeal or withdrawn or are at the scoping stage are not included in the assessment.

LI TGN 2024/01 Clarification 7(2) suggests “scoping stage schemes only considered where they are likely to be submitted before or at a similar time to the project under consideration, and interact with the project in a potentially significant way, provided that the scoping project(s) is/are well defined and sufficient information is available for the effects to be reasonably understood.”

The way in which the assessment is described and presented is varied depending on the number and nature of scenarios which may arise.

Magnitude of change/ impact

The aim of the cumulative assessment is to identify the magnitude of additional cumulative change which would be brought about by the proposed development when considered in conjunction with other development

A range of parameters should be considered, including:

the number of other projects which would be visible in the landscape in each of the different scenarios (existing, consented or application stage);

the distance to each of the visible developments from the receptor location;

the direction of each development in relation to the receptor;

the extent of the view occupied by each development;

the cumulative effect of development upon the fabric or key landscape components; and

in the case of landscape character area, residential areas, and transportation/ recreational routes: the proportion of the area or route subject to cumulative views.

The criteria for defining cumulative magnitude are outlined in Table A13.

Table A13: Example definitions of cumulative magnitude of change/ impact

Magnitude of impact	Typical descriptors Landscape and Visual Resource
Large	The Proposed Development would represent a considerable increase in the proportion of the landscape or view affected by similar development. The result of this change would be a fundamental change to baseline conditions.
Medium	The Proposed Development would represent a notable increase in the proportion of the landscape or view affected by similar development. Moderate cumulative change would represent prominent, but localised change.
Small	The Proposed Development would represent a minor addition to the proportion of the landscape or view affected by similar development. Cumulative change arising from the proposals would be discernible but the original baseline conditions would remain fundamentally the same.
Negligible	The Proposed Development would represent a very minor addition to the proportion of the landscape or view affected by similar developments. Baseline conditions would fundamentally be unaltered. Cumulative change arising from the proposed Development would be barely distinguishable.

Cumulative impacts on visual amenity can be described as:

Simultaneous or combined: where two or more developments may be viewed from a single fixed viewpoint simultaneously, within the viewer's field of view and without requiring them to turn their head;

Successive or repetitive: where two or more developments may be viewed from a single viewpoint successively as the viewer turns their head or swivels through 360°; and

Sequential: where a number of developments may be viewed sequentially or repeatedly at increased frequency, from a range of locations when travelling along a route within the LVIA Study Area.

Significance of Cumulative Effect

The approach to assessing the significance of cumulative landscape and visual effects is guided by the same principles as those for the assessment of the landscape and visual effects of the proposed development itself.

“The most significant cumulative landscape effects are likely to be those that would give rise to changes in the landscape character of the study area so as to result in significant effects on its key characteristics and even, in some cases, to transform it into a different landscape type”. (GLVIA3, p 134) Landscapes, have a finite capacity for cumulative development, beyond which further new development would result in landscape character change and could result in the creation of a 'renewable energy infrastructure landscape' where solar farms have become the dominant characteristic.

Figure B1. Bare Earth ZTV

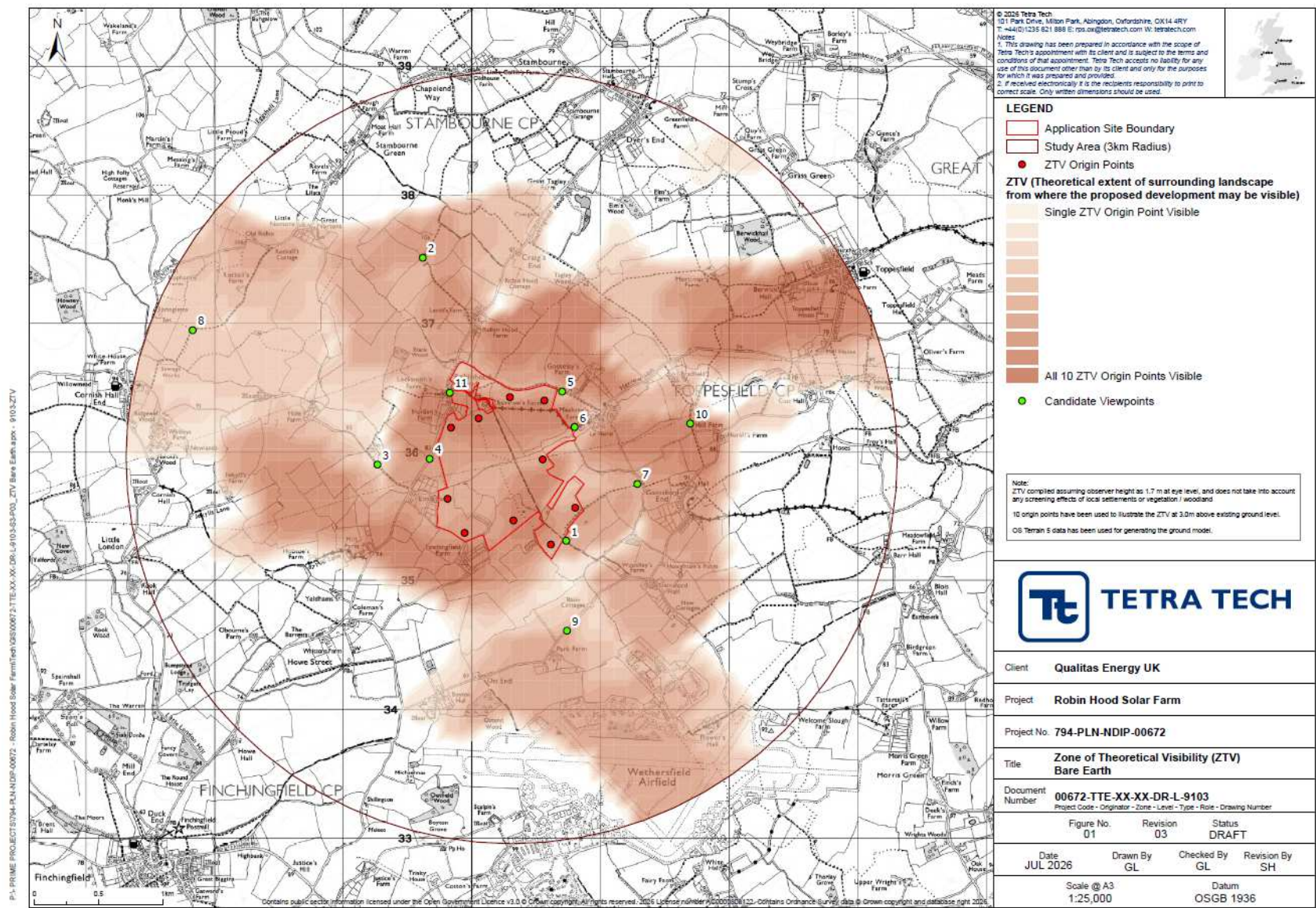
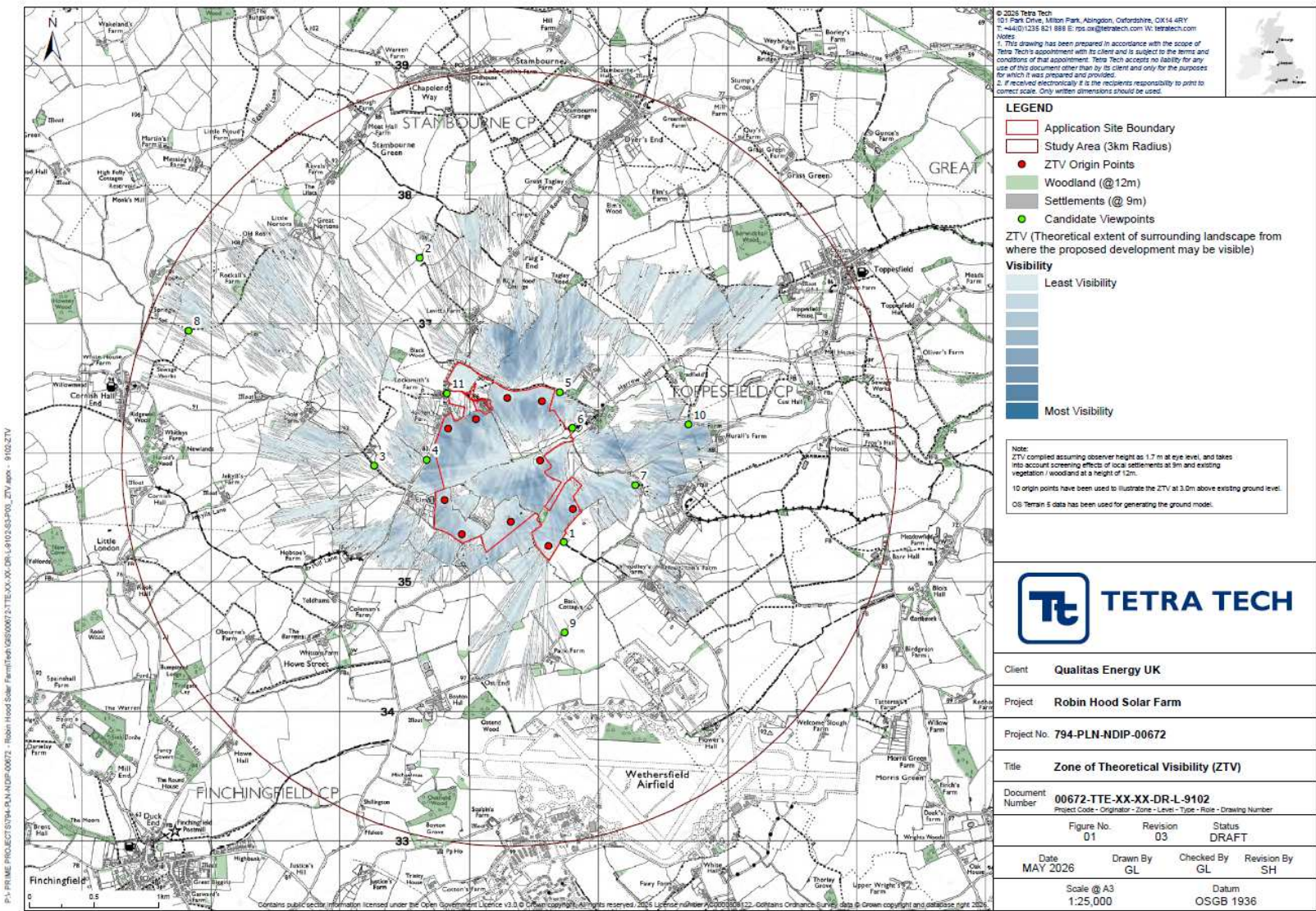


Figure B2. ZTV



Appendix C: Agricultural Land Classification Survey



AGRICULTURAL LAND CLASSIFICATION ROBINHOOD SOLAR FARM, ESSEX

CLIENT: QUALITAS ENERGY
PROJECT: ROBINHOOD SOLAR FARM, ESSEX
DATE: 27TH MARCH 2026 – ISSUE 1
ISSUED BY: JAMES FULTON MRICS FAAY

CONTENTS

1. EXECUTIVE SUMMARY
2. INTRODUCTION
3. PUBLISHED INFORMATION
4. CLIMATE
5. STONINESS
6. GRADIENT
7. SOILS

INTERACTIVE FACTORS

8. WETNESS
9. DROUGHTINESS
10. AGRICULTURAL LAND CLASSIFICATION

APPENDIX 1 – DETAILS OF THE AUTHORS EXPERIENCE

APPENDIX 2 – PLAN OF SITE WITH SAMPLING POINTS

APPENDIX 3 – AGRO-CLIMATIC DATA

APPENDIX 4 – SURVEY DATA

APPENDIX 5 – DESCRIPTION OF AGRICULTURAL LAND CLASSIFICATION GRADES

APPENDIX 6 – MAP OF LAND GRADING

1. EXECUTIVE SUMMARY

- 1.1 This report assesses the Agricultural Land Classification (ALC) grading of 104.5Ha, at Near Toppesfield, Essex.
- 1.2 The limiting factor found largely to be soil wetness, a combination of the climatic regime, soil water regime and texture of the top 25cm of the soil. Apart from a small patch in the west of the site limited by soil droughtiness.
- 1.3 The land is graded as follows:

Grade 3a:	103.1 Ha
Grade 3b:	2.5Ha
Non-Agricultural:	0.4 Ha

2. INTRODUCTION

- 2.1 Amet Property Ltd have been instructed by Qualitas Energy to produce an Agricultural Land Classification (ALC) report on a 104.5-hectare site on land Southwest of Toppesfield. The ALC report is being prepared to accompany a planning application to be submitted for 60mw Solar Farm.
- 2.2 The report's author is James Fulton BSc (Hons) MRICS FAAV who has worked as a chartered surveyor, agricultural valuer, and agricultural consultant since 2004, has a degree in agriculture which included modules on soils and over 10 years' experience in advising farmers on soil structure and cultivation methods and in producing agricultural land classification reports. Additional information on authors experience is found at **appendix 1**.
- 2.3 The report is based on a site visit conducted by four surveyors on the 27th of February 2026, during which the conditions were overcast and mild, and soils were found to be moist.
- 2.4 The surveyed area extends to 104.5Ha of arable and grass land spread across 12 fields. The land is situated southwest of Toppersfield and north of RAF Wethersfield.
- 2.5 The site is described in literature as likely to have naturally calcareous soils. In order to confirm hydrochloric acid was used to test in field for a reaction that would indicate calcareous soils.
- 2.6 During the inspection 3 trial pits were dug to a depth of 120cm. In addition to the trial pits an auger was used to take approximately one sample per hectare on the proposed development site to a depth of 120cm with smaller trial pits at some of these locations to confirm soil structure and colour where it was not clear from the auger samples. A plan of auger points and trial pit locations can be found at **appendix 2**. The trial pit locations were selected as they were representative of the soils found on site. Where subsoils were inspected with a spade, descriptions of structure have been recorded based on the soil survey field handbook¹; where an auger has been used the structure is described as good, moderate or poor based on figure 9,10 and 11 in the DEFRA & Welsh Government (2025)² guidance. Colours are described using Munsell Colours³.
- 2.7 Further information has been obtained from the MAGIC website, the Soil Survey of England and Wales, the British Geological Survey, the Meteorological Office and the 1:250,000 series Agricultural Land Classification maps.
- 2.8 The collected information has been judged against the Ministry of Agriculture Fisheries and Food Agricultural Land Classification of England and Wales revised guidelines and criteria for grading the quality of agricultural land.

¹ Hodgson, JM (2022) Soil Survey Field Handbook

² DEFRA (2025) - *Agricultural Land Classification of England and Wales. Guidelines for grading the quality of agricultural land – DEFRA and Welsh Government joint publication*

³ Munsell Color (2009) Munsell Soil Color Charts

- 2.9 The principal factors influencing agricultural production are climate, site and soil and the interaction between them DEFRA & Welsh Government (2025) & Natural England (2012)⁴.
- 2.10 The report is prepared and formatted considering the latest BSSS guidance⁵.

3. PUBLISHED INFORMATION

- 3.1 The British Geological Survey 1:50,000 scale map shows the bedrock geology to be Lewes Nodular Chalk Formation with superficial deposits of Lowestoft formation- Diamicton.
- 3.2 The soils on the site are identified as being 411d HANSLOPE Association, slowly permeable calcareous clayey soils.
- 3.3 The 1:250,000 series Agricultural Land Classification maps show the land to be Grade 2. These plans are of strictly limited value, using an out-of-date methodology at a very small scale (low detail) level of survey. Further information on the limits of their use can be found in TIN049.
- 3.4 The Natural England Register of Post 1988 Agricultural Land Classification maps show that the land has not yet been surveyed.

⁴ DEFRA (2025) - *Agricultural Land Classification of England and Wales. Guidelines for grading the quality of agricultural land – DEFRA and Welsh Government joint publication*

Natural England (2012) - *Technical Information Note 049 - Agricultural Land Classification: protecting the best and most versatile agricultural land*, Second Edition

⁵ BSSS (2022) *Working with Soil Guidance Note on Assessing Agricultural Land Classification Surveys in England and Wales*

4. CLIMATE

- 4.1 Climate has a major, and in places overriding, influence on land quality affecting both the range of potential agricultural uses and the cost and level of production.
- 4.2 There is published agro-climatic data for England and Wales provided by the Meteorological Office, such data for the subject site is listed in the table below.

Agro-Climatic Data – Full details can be found at **appendix 3**

Grid Reference	571371,236514
Altitude (ALT)	81
Average Annual Rainfall (AAR)	611
Accumulated Temperature - Jan to June (AT0)	1380
Duration of Field Capacity (FCD)	114
Moisture Deficit Wheat	114
Moisture Deficit Potatoes	108

- 4.3 The main parameters used in assessing the climatic limitation are average annual rainfall (AAR), as a measure of overall wetness; and accumulated temperature (AT0), as a measure of the relative warmth of a locality.
- 4.4 The AAR and AT0 provide climatic limitation to Grade 1.
- 4.5 The site is shown to be largely in flood zone 1 – areas with a less than 1 in 1000 annual chance of flooding. Apart from the area surrounding Toppesfield Brook, which runs through the centre of the site, which is shown to be in flood zone 3 – areas with greater than 1 in 100 annual chances of flooding. There was no evidence of flooding seen during the site visit and it is considered that will not result in a limitation to land grade.

5. STONINESS

- 5.1 The stones that were identified in the topsoil are not of sufficient size or quantity to limit land grade.

6. GRADIENT AND MICRORELIEF

- 6.1 The site is gently sloping with no gradient or microrelief that limits land grade.

7. SOILS

- 7.1 Full information on the sample points along with trial pit descriptions and photographs and lab test results can be found at **appendix 4**.

SOIL TYPE –

- 7.2 The topsoil was found to be a dark grey (10YR 4/1), dark greyish brown (10YR 4/2, 2.5Y 4/2) or olive brown (2.5Y 4/3, 4/4) calcareous clay or clay loam.
- 7.3 The upper subsoils were found to be calcareous clay or clay loam. The colours were found to be grey (10YR 5/1, 6/1, 2.5Y 5/1), greyish brown (10YR 5/2, 2.5Y 5/2), brown (7.5YR 5/2, 5/3), light olive brown (2.5Y 5/3), pale brown (10YR 6/3), light brownish grey (2.5Y 6/2) or light yellowish brown (2.5Y 6/3, 6/4). The subsoil had a moderate or poor structure and common or many ochreous mottles.
- 7.4 Where a lower subsoil was identified it was recorded as calcareous clay or clay loam. The colours were found to be dark yellowish brown (10YR 4/6), grey (10YR 5/1, 6/1, 7.5YR 5/1, 2.5Y 6/1), greyish brown (2.5Y 5/2), light yellowish brown (2.5Y 6/3) or light yellowish brown (10YR 6/4). The subsoil had a poor or moderate structure and common to many ochreous mottles.
- 7.5 When compared to the identified soil association, a slowly permeable layer and gleying was identified at a shallower depth to what one might expect. The subsoils appeared in places to have been damaged by mechanical compaction over the years resulting in subsoils with a poorer structure than expected.

INTERACTIVE FACTORS

8. WETNESS

- 8.1 An assessment of the wetness class of each sample point was made based on the flow chart at Figure 6 and the graphs at figure 7 and 8 in the MAFF guidance.

Wetness class Assessment

Depth to gley	Depth to SPL	Coarse subsoil	Wetness Class
No gley	No SPL	N/A	I
40-70	No SPL	Yes	I
40-70	No SPL	No	I
<40	No SPL	Yes	I
<40	No SPL	No	II
40-70	No SPL	No	I
40-70	>37	N/A	II
40-70	<37	N/A	III
<40	>58	N/A	II
<40	<58	N/A	III

- 8.2 The wetness class and topsoil texture were then assessed against Table 6 of the MAFF guidance to determine the ALC grade according to wetness. The wetness assessment can be found at **appendix 4**.
- 8.3 All survey points were identified as being gleyed within 40cm and with a slowly permeable layer within 58cm resulting in an assessment of wetness class III. When combined with calcareous clay or heavy clay loam topsoil this results in a limit of grade 3a.

9. DROUGHTINESS

- 9.1 Droughtiness limits are defined in terms of moisture balance for wheat and potatoes using the formula:

$$MB \text{ (Wheat)} = AP \text{ (Wheat)} - MD \text{ (Wheat)}$$

and

$$MB \text{ (Potatoes)} = AP \text{ (Potatoes)} - MD \text{ (Potatoes)}$$

Where:

MB = Moisture Balance

AP = Crop Adjusted available water capacity

MD = Moisture deficit

- 9.2 Moisture deficit for wheat and potatoes can be found in the agro-climatic data and are as follows:

$$MD \text{ (Wheat)} = 114$$

$$MD \text{ (Potatoes)} = 108$$

- 9.3 Crop adjusted available water is calculated by reference to the total available water and easily available water which is calculated by reference to soil texture and structural condition and the stone content.
- 9.4 The moisture balance was calculated for all survey points; this assessment can be found at **appendix 4**.
- 9.5 A small patch in the west of the site is shown to be limited by droughtiness to Grade 3b due to a layer of impenetrable stone found from 50-60cm. The rest of the site is limited to grade 2 by droughtiness.

10. AGRICULTURAL LAND CLASSIFICATION

- 10.1 The Agricultural Land Classification provides a framework for classifying land according to which its physical or chemical characteristics impose long-term limitations on agricultural use. The limitations can operate in one or more of four principal ways: they may affect the range of crops that can be grown, the level of yield, the consistency of yield and the cost of obtaining it.
- 10.2 The principle physical factors influencing agricultural production are climate, site and soil and the interactions between them which together form the basis for classifying land into one of 5 grades: grade 1 being of excellent quality and grade 5 being land of very poor quality. Grade 3 land, which constitutes approximately half of all agricultural land in the United Kingdom is divided into 2 subgrades – 3a and 3b. A full definition of all the grades can be found at **appendix 5**.
- 10.3 This assessment sets out that the site is principally limited by wetness with a small area limited by droughtiness.
- 10.4 The breakdown of land by classification is:
- | | |
|-------------------|----------|
| Grade 3a: | 103.1 Ha |
| Grade 3b: | 2.5Ha |
| Non-Agricultural: | 0.4 Ha |
- 10.5 A plan of the land grading can be found at **appendix 6**.

Appendix 1 – Details of the Authors Experience

James Fulton

Professional Education and Qualifications

BSc (Hons) Agriculture, University of Nottingham (2004)

Member of the Royal Institution of Chartered Surveyors (MRICS) (2008)

Fellow of the Central Association of Agricultural Valuers (FAAV) (2009)

Relevant Work Experience

While working for a regional firm from 2004 until 2016 as part of my work I provided advice to farmers on soils, cultivation techniques and cropping and was involved in field trials which assessed cropping and cultivation techniques and how they impacted soil structure. At the same time I worked alongside an experienced surveyor who produced Agricultural Land Classification reports and I received training in field survey techniques and the ALC process to the point where I was able to produce ALC reports.

In 2016 I left my employer and formed Amet Property Ltd providing development consultancy and other rural practice surveying services. Of all of the services that we provide Agricultural Land Classification reports is the single largest area of work accounting for approximately 70% of all of my working time.

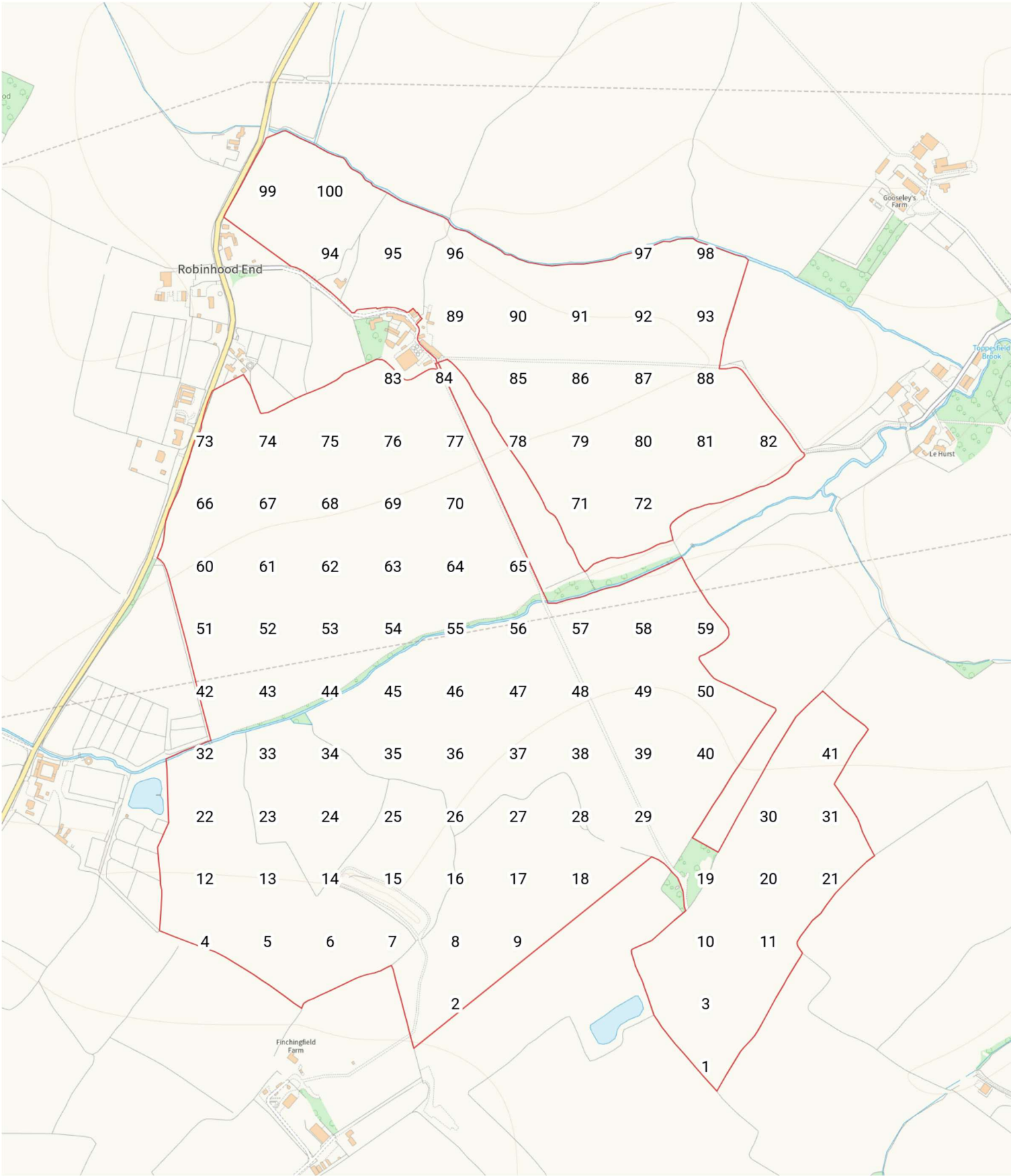
While I am not a member of the BSSS I meet the minimum competencies set out by the BSSS in Document 1 *Foundation skills in field soil investigation, description and interpretation* and Document 2 *Agricultural Land Classification (England and Wales)*

Professional Standards

As a member of the Royal Institution of Chartered Surveyors and Fellow of the Central Association of Agricultural Valuers I am bound by their professional standards and am only able to carry out work where I am suitably qualified and experienced to do so. Due to the formal and practical training that I have received I am able to competently produce Agricultural Land Classification reports.

Assistant Surveyors

All assistant surveyors have completed the BSSS working with soil course and have been trained to meet the requirements of BSSS Document 1 *Foundation skills in field soil investigation, description, and interpretation*.



Appendix 3 - Climatic Data

Centre of the site	Easting	Northing	Mean
			Altitude
	571371	236514	81

Surrounding Climate Data

Grid Reference	ALT	AAR	LR_AAR	ASR	AT0	ATS	MDW	MDP	FCD
5700 2350	89	617	0.6	305	1372	2373	113	106	115
5700 2400	91	610	0.8	305	1367	2368	112	105	115
5750 2350	71	603	0.8	300	1391	2397	116	110	112
5750 2400	61	601	0.8	290	1400	2407	119	114	110

Altitude adjusted

Grid Reference	AAR	AT0	FCD	MDW	MDP	Proximity
						Adjustment
5700 2350	612.20	1381.12	114.31	114.16	107.53	57.74%
5700 2400	602.00	1378.40	113.84	113.59	107.09	17.17%
5750 2350	611.00	1379.60	113.16	114.41	107.91	15.58%
5750 2400	617.00	1377.20	112.31	115.83	109.82	9.51%

Altitude Adjusted Climate Data

AAR	611
AT0	1380
FCD	114
MDW	114
MDP	108

Appendix 4a - Sample Point Assessment

Topsoil										Stoniness				Upper Subsoil				Lower Subsoil				Wetness Assessment				Grade		Droughtiness Assessment		Grade		Most
Sample No	Altitude	Depth	Texture	Calc	Colour	<2cm	2-6cm	>6cm	Mottles	Depth	Texture	Calc	Colour	Stoniness	Mottles	Structure	Depth	Texture	Calc	Colour	Stoniness	Mottles	Structure	Depth to Gleyed	SPL	Wetness Class	Wetness limit by Wetness	Wheat	Potato	limit by Droughtiness	limiting Grade	
1	86	0 - 30	C	Y	2.5Y 4 / 2					30 - 120	C	Y	2.5Y 6 / 2	3%	MOB	Poor	-				/											
2	88	0 - 25	C	Y	10YR 4 / 2					25 - 120	C	Y	10YR 5 / 3		COB	Poor	-				/				25	25	III	3a	9.74	-6.73	2	3a
3	87	0 - 30	C	Y	2.5Y 4 / 3					30 - 120	C	Y	2.5Y 6 / 2	3%	MOB	Poor	-				/				30	30	III	3a	9.66	-6.17	2	3a
4	84	0 - 35	HCL	Y	10YR 4 / 2					35 - 120	C	Y	10YR 5 / 2		CO	Poor	-				/				35	35	III	3a	17.24	0.77	2	3a
5	82	0 - 35	HCL	Y	10YR 4 / 2					35 - 120	C	Y	10YR 5 / 3		CO	Poor	-				/				35	35	III	3a	17.24	0.77	2	3a
6	83	0 - 35	HCL	Y	10YR 4 / 2					35 - 120	C	Y	10YR 5 / 3		CO	Poor	-				/				35	35	III	3a	17.24	0.77	2	3a
7	82	0 - 35	HCL	Y	10YR 4 / 2					35 - 120	C	Y	10YR 5 / 3		CO	Poor	-				/				35	35	III	3a	17.24	0.77	2	3a
8	82	0 - 30	C	Y	10YR 4 / 2				FOB	30 - 120	C	Y	10YR 5 / 3		COB	Poor	-				/				30	30	III	3a	11.74	-4.73	2	3a
9	86	0 - 35	C	Y	10YR 4 / 2				FOB	35 - 50	C	Y	10YR 5 / 2	3%	MOB	Poor	50 - 120	C	Y	10YR 5 / 1			MOB	Poor	35	35	III	3a	13.20	-3.27	2	3a
10	88	0 - 25	HCL	Y	10YR 4 / 1				CO	25 - 120	C	Y	10YR 6 / 2		MO	Poor	-				/				25	25	III	3a	12.24	-4.23	2	3a
11	88	0 - 20	HCL	Y	10YR 4 / 1				CO	20 - 120	C	Y	10YR 6 / 2		MO	Poor	-				/				20	20	III	3a	9.74	-6.73	2	3a
12	81	0 - 35	HCL	Y	10YR 4 / 2					35 - 120	C	Y	10YR 5 / 2		CO	Poor	-				/				35	35	III	3a	17.24	0.77	2	3a
13	80	0 - 35	HCL	Y	10YR 4 / 2					35 - 120	C	Y	10YR 5 / 2		CO	Poor	-				/				35	35	III	3a	17.24	0.77	2	3a
14	82	0 - 34	C	Y	10YR 4 / 1				FO	34 - 120	C	Y	10YR 5 / 3		MO	Poor	-				/				34	34	III	3a	13.34	-3.13	2	3a
15	80	0 - 35	C	Y	10YR 4 / 2				FO	35 - 120	C	Y	10YR 5 / 1		MO	Poor	-				/				35	35	III	3a	13.74	-2.73	2	3a
16	82	0 - 30	C	Y	10YR 4 / 2				FO	30 - 120	C	Y	10YR 5 / 1		MO	Poor	-				/				30	30	III	3a	11.74	-4.73	2	3a
17	84	0 - 30	C	Y	10YR 4 / 2				FOB	30 - 120	C	Y	10YR 5 / 2	3%	MOB	Poor	-				/				30	30	III	3a	9.66	-6.17	2	3a
18	88	0 - 30	C	Y	10YR 4 / 2				FOB	30 - 120	C	Y	10YR 5 / 2	3%	MOB	Poor	-				/				30	30	III	3a	9.66	-6.17	2	3a
19	90	Non-Agricultural																														
20	87	0 - 25	HCL	Y	10YR 4 / 1				CO	25 - 120	C	Y	10YR 6 / 2		MO	Poor	-				/				25	25	III	3a	12.24	-4.23	2	3a
21	87	0 - 20	HCL	Y	10YR 4 / 1				CO	20 - 120	C	Y	10YR 6 / 2		MO	Poor	-				/				20	20	III	3a	9.74	-6.73	2	3a
22	77	0 - 25	C	Y	2.5Y 4 / 2				FO	25 - 120	C	Y	2.5Y 5 / 2		MO	Poor	-				/				25	25	III	3a	9.74	-6.73	2	3a
23	77	0 - 35	C	Y	10YR 5 / 1				CO	35 - 120	C	Y	10YR 6 / 1		MO	Poor	-				/				35	35	III	3a	13.74	-2.73	2	3a
24	78	0 - 35	C	Y	10YR 5 / 1				CO	35 - 120	C	Y	10YR 6 / 1		MO	Poor	-				/				35	35	III	3a	13.74	-2.73	2	3a
25	78	0 - 30	C	Y	10YR 5 / 2				FO	30 - 120	C	Y	10YR 6 / 1		MO	Poor	-				/				30	30	III	3a	11.74	-4.73	2	3a
26	81	0 - 30	C	Y	2.5Y 4 / 3					30 - 120	C	Y	10YR 6 / 2		MO	Poor	-				/				30	30	III	3a	11.74	-4.73	2	3a
27	83	0 - 30	C	Y	10YR 4 / 1				FO	30 - 120	C	Y	10YR 5 / 2	3%	MOB	Poor	-				/				30	30	III	3a	9.66	-6.17	2	3a
28	88	0 - 30	C	Y	10YR 4 / 1				CO	30 - 120	C	Y	10YR 5 / 2	2%	MOB	Poor	-				/				30	30	III	3a	10.35	-5.69	2	3a
29	87	0 - 30	C	Y	2.5Y 4 / 3				CO	30 - 120	C	Y	2.5Y 6 / 2	2%	MOB	Poor	-				/				30	30	III	3a	10.35	-5.69	2	3a
30	83	0 - 30	C	Y	2.5Y 4 / 3					30 - 120	C	Y	2.5Y 5 / 1		MO	Poor	-				/				30	30	III	3a	11.74	-4.73	2	3a
31	84	0 - 35	C	Y	2.5Y 4 / 3				FB	35 - 120	C	Y	2.5Y 5 / 1		MOB	Poor	-				/				35	35	III	3a	13.74	-2.73	2	3a
32	74	0 - 25	C	Y	2.5Y 4 / 2				FO	25 - 120	C	Y	2.5Y 5 / 2		MO	Poor	-				/				25	25	III	3a	9.74	-6.73	2	3a
33	75	0 - 35	C	Y	10YR 4 / 2					35 - 120	C	Y	10YR 5 / 1		MO	Poor	-				/				35	35	III	3a	13.74	-2.73	2	3a
34	75	0 - 35	C	Y	10YR 4 / 2					35 - 120	C	Y	10YR 6 / 1		MO	Poor	-				/				35	35	III	3a	13.74	-2.73	2	3a
35	77	0 - 35	C	Y	2.5Y 4 / 3					35 - 120	C	Y	10YR 6 / 2		MO	Poor	-				/				35	35	III	3a	13.74	-2.73	2	3a
36	79	0 - 35	C	Y	2.5Y 4 / 3					35 - 120	C	Y	10YR 6 / 2		MO	Poor	-				/				35	35	III	3a	13.74	-2.73	2	3a
37	79	0 - 35	C	Y	2.5Y 4 / 3					35 - 120	C	Y	10YR 6 / 2		MO	Poor	-				/				35	35	III	3a	13.74	-2.73	2	3a
38	81	0 - 30	C	Y	2.5Y 4 / 3					30 - 120	C	Y	2.5Y 6 / 2	2%	MOB	Poor	-				/				30	30	III	3a	10.35	-5.69	2	3a
39	83	0 - 30	C	Y	2.5Y 4 / 3					30 - 120	C	Y	2.5Y 5 / 1		MO	Poor	-				/				30	30	III	3a	11.74	-4.73	2	3a
40	82	0 - 30	C	Y	2.5Y 4 / 3					30 - 120	C	Y	2.5Y 5 / 1		MO	Poor	-				/				30	30	III	3a	11.74	-4.73	2	3a
41	79	0 - 35	C	Y	2.5Y 4 / 2					35 - 50	C	Y	2.5Y 5 / 2		CO	Poor	50 - 120	C	Y	2.5Y 6 / 1			MO	Poor	35	35	III	3a	13.74	-2.73	2	3a
42	76	0 - 35	C	Y	2.5Y 4 / 3					35 - 50	SCL	Y	2.5Y 5 / 3	5%	MO	Moderate	50 - 120	C	Y	2.5Y 5 / 2			COB	Poor	35	35	III	3a	15.69	-0.78	2	3a
43	74	0 - 40	C	Y	2.5Y 4 / 3					40 - 50	SCL	Y	2.5Y 5 / 3	5%	CO	Poor	50 - 120	Stone			/			40	40	III	3a	-30.36	-25.33	3b	3b	
44	73	0 - 35	C	Y	2.5Y 4 / 3					35 - 60	HCL	Y	2.5Y 5 / 3	5%	CO	Poor	60 - 120	Stone			/			35	35	III	3a	-27.91	-18.60	3b	3b	
45	75	0 - 35	C	Y	10YR 4 / 3					35 - 120	C	Y	7.5YR 5 / 2		MO	Poor	-				/				35	35	III	3a	13.74	-2.73	2	3a
46	75	0 - 35	C	Y	10YR 4 / 3					35 - 120	C	Y	7.5YR 5 / 3		MO	Poor	-				/				35	35	III	3a	13.7			

Wetness Assessment																				Grade	Droughtiness Assessment		Grade	Most
										limit by			limit by	limiting										
										MB	MB		limit by	Grade										
										Wheat	Potato		Droughtiness	Grade										
										Gleyed	SPL	Class	Wetness											
										25	25	III	3a	9.74	-6.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									
										30	30	III	3a	11.74	-4.73									

81

Appendix 4b – Trial Pit Descriptions

Sample Point No. 31		
Horizon 1	0-35cm olive brown (2.5Y 4/3) calcareous clay, with few black mottles.	
Horizon 2	35-120cm grey (2.5Y 5/1) calcareous clay, with a massive structure, firm consistence and many ochreous mottles.	
Horizon 3		
Pictures		
Horizon 1	Horizon 2	Horizon 3
		
Slowly permeable layer	Starts at 35cm – evidenced by firm massive structure with less than 0.5% biopores >0.5mm.	
Gleying	Starts at 35cm – evidenced by greyish colours dominant in the matrix and at least 2% ochreous mottles.	
Wetness Class	III	
Wetness limitation	3a	
MB Wheat	13.74	
MB potatoes	-2.73	
Droughtiness Limitation	2	

Sample Point No. 63		
Horizon 1	0-40cm olive brown (2.5Y 4/3) calcareous heavy clay loam.	
Horizon 2	40-50cm pale brown (10YR 6/3) calcareous heavy clay loam, with a weak medium angular blocky structure, firm consistence and many ochreous mottles and 2% stone content.	
Horizon 3	50-120cm dark yellowish brown (10YR 4/6) calcareous medium clay loam, with a fine subangular blocky structure, friable consistence and many ochreous mottles.	
Pictures		
Horizon 1	Horizon 2	Horizon 3
		
Slowly permeable layer	Starts at 40cm – evidenced by firm weak medium angular blocky structure with less than 0.5% biopores >0.5mm.	
Gleying	Starts at 40cm – evidenced by greyish colours dominant in the matrix and at least 2% ochreous mottles.	
Wetness Class	III	
Wetness limitation	3a	
MB Wheat	36.20	
MB potatoes	6.55	
Droughtiness Limitation	2	

Sample Point No. 66		
Horizon 1	0-35cm olive brown (2.5Y 4/3) calcareous heavy clay loam.	
Horizon 2	35-120cm greyish brown (2.5Y 5/2) calcareous clay, with a coarse angular blocky structure, firm consistence and many ochreous mottles.	
Horizon 3		
Pictures		
Horizon 1	Horizon 2	Horizon 3
		
Slowly permeable layer	Starts at 35cm – evidenced by firm coarse angular blocky structure with less than 0.5% biopores >0.5mm.	
Gleying	Starts at 35cm – evidenced by greyish colours dominant in the matrix and at least 2% ochreous mottles.	
Wetness Class	III	
Wetness limitation	3a	
MB Wheat	17.24	
MB potatoes	0.77	
Droughtiness Limitation	2	

Appendix 4b – Core Photos



Survey Point 8 – Core Photo



Survey Point 9 – Topology



Survey Point 23 – Core Photo



Survey Point 58 – Core Photo



Survey Point 65 – Core Photo



Survey Point 93 – Core Photo



Survey Point 95 – Core Photo

ANALYTICAL REPORT

Report Number	44169-26	W250	AMET PROPERTY
Date Received	11-MAR-2026		HENWICK BARN
Date Reported	20-MAR-2026		BULWICK
Project	QUALITAS ENERGY		CORBY
Reference	ROBIN HOOD SOLAR		NORTHANTS
Order Number			NN17 3DU

Laboratory Reference		SOIL787457	SOIL787458	SOIL787459						
Sample Reference		R66	R31	R63 SS2						
Determinand	Unit	SOIL	SOIL	SOIL						
Coarse Sand 2.00-0.63mm	% w/w	2	1	8						
Medium Sand 0.63-0.212mm	% w/w	11	10	15						
Fine Sand 0.212-0.063mm	% w/w	18	14	20						
Silt 0.063-0.002mm	% w/w	34	34	36						
Clay <0.002mm	% w/w	35	41	21						
Textural Class **		C/HCL	C	MCL						

Notes

Analysis Notes	The sample submitted was of adequate size to complete all analysis requested. The results as reported relate only to the item(s) submitted for testing. The results are presented on a dry matter basis unless otherwise stipulated.
Document Control	This test report shall not be reproduced, except in full, without the written approval of the laboratory.

Reported by	** Please see the attached document for the definition of textural classes. <i>Teresa Clyne</i> Natural Resource Management, a trading division of Cawood Scientific Ltd. Coopers Bridge, Braziers Lane, Bracknell, Berkshire, RG42 6NS Tel: 01344 886338 Fax: 01344 890972 email: enquiries@nrm.uk.com
-------------	--

ANALYTICAL REPORT

Report Number	44167-26	W250	AMET PROPERTY	Client	ROBIN HOOD SOLAR
Date Received	11-MAR-2026		HENWICK BARN		
Date Reported	25-MAR-2026		BULWICK		
Project	QUALITAS ENERGY		CORBY		
Reference	ROBIN HOOD SOLAR		NORTHANTS		
Order Number			NN17 3DU		

Laboratory Reference		SOIL787451									
Sample Reference		R63									
Determinand	Unit	SOIL									
pH water [1:2.5]		8.2									
Available Phosphorus (Index)	mg/l	4.6 (0)									
Available Potassium (Index)	mg/l	119 (1)									
Available Magnesium (Index)	mg/l	36.1 (1)									
Coarse Sand 2.00-0.63mm	% w/w	3									
Medium Sand 0.63-0.212mm	% w/w	13									
Fine Sand 0.212-0.063mm	% w/w	16									
Silt 0.063-0.002mm	% w/w	36									
Clay <0.002mm	% w/w	32									
Organic Matter LOI	% w/w	5.0									
Neutralising Value as CaCO3 eq.	% w/w	5.4									
Neutralising Value as CaO eq.	% w/w	3.0									
Textural Class **		HCL									

Notes

Analysis Notes	The sample submitted was of adequate size to complete all analysis requested. The results as reported relate only to the item(s) submitted for testing. The results are presented on a dry matter basis unless otherwise stipulated.
Document Control	This test report shall not be reproduced, except in full, without the written approval of the laboratory.

ADAS (UK) Textural Class Abbreviations

The texture classes are denoted by the following abbreviations:

Class	Code
Sand	S
Loamy sand	LS
Sandy loam	SL
Sandy Silt loam	SZL
Silt loam	ZL
Sandy clay loam	SCL
Clay loam	CL
Silt clay loam	ZCL
Clay	C
Silty clay	ZC
Sandy clay	SC

For the *sand*, *loamy sand*, *sandy loam* and *sandy silt loam* classes the predominant size of sand fraction may be indicated by the use of prefixes, thus:

vf	Very Fine (more than 2/3's of sand less than 0.106 mm)
f	Fine (more than 2/3's of sand less than 0.212 mm)
c	Coarse (more than 1/3 of sand greater than 0.6 mm)
m	Medium (less than 2/3's fine sand and less than 1/3 coarse sand).

The subdivisions of *clay loam* and *silty clay loam* classes according to clay content are indicated as follows:

M	medium (less than 27% clay)
H	heavy (27-35% clay)

Organic soils i.e. those with an organic matter greater than 10% will be preceded with a letter O.

Peaty soils i.e. those with an organic matter greater than 20% will be preceded with a letter P.

APPENDIX 5 - DESCRIPTION OF ALC GRADES

- Grade 1 - excellent quality agricultural land Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.
- Grade 2 - very good quality agricultural land Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
- Grade 3 - good to moderate quality agricultural land Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.
- Subgrade 3a - good quality agricultural land Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.
- Subgrade 3b - moderate quality agricultural land Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.
- Grade 4 - poor quality agricultural land Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.
- Grade 5 - very poor-quality agricultural land Land with very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

