



# Mallard Pass

Solar Farm

## **Mallard Pass Solar Farm**

**Preliminary Environmental Information Report**

**Volume 3: Appendices**

**Appendix 2.1: EIA Scoping Report**

**May 2022**



Secretary of State for Business, Energy and Industrial Strategy

By email to: [MallardPass@planninginspectorate.gov.uk](mailto:MallardPass@planninginspectorate.gov.uk)

18<sup>th</sup> February 2022

Dear Sir/Madam,

**Mallard Pass Solar Farm: Errata relating to Scoping Report (Planning Inspectorate reference:EN010127)**

It has come to our attention that there is a repeated error in the Scoping Report submitted on 4th February 2022 (internal doc. Ref: 7863\_EIA\_001 Mallard Pass Scoping Report). The error and corrections are outlined in the table, below:

Paragraph	Nature of erratum	Correction
1.2.1	"Windel Solar 3 Ltd and Candaian Solar Inc" is incorrect.	Change text to "Windel Energy Ltd".
1.2.2	"Windel Solar 3 Ltd" is incorrect in the first sentence in the paragraph.	Change text to "Windel Energy Ltd".
1.2.2	"Windel Solar 3 Ltd" is incorrect in the final sentence in the paragraph.	Change text to "Windel Energy Ltd".
1.2.3	Additional text for clarity.	Change text of first sentence to: "Canadian Solar Inc is the development partner of Windel Energy Ltd. It was founded in 2001 in Canada and is one of the world's largest solar companies.

There are no further changes required to the content of the document.

Please do not hesitate to contact me if there are any questions.



Yours sincerely,



Jonathan Harris

For and on behalf of Mallard Pass Solar Farm





# **Mallard Pass**

Solar Farm

## **Mallard Pass Solar Farm**

**Scoping Report**

February 2022



# Mallard Pass Solar Farm, Essendine

**Environmental Impact Assessment Scoping Opinion Request**  
February 2022

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7863\_EIA\_0001 Mallard Pass EIA Scoping Report

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Version: 0.1

Version date: 4th February 2022

Comment Final

*This document has been prepared and checked in accordance with ISO 9001:2015.*

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<b>Acronyms and Abbreviations</b>	
AADT	Annual Average Daily Traffic
AC	Alternating Current

AIL	Abnormal Indivisible Load
ALC	Agricultural Land Classification
AOD	Above Ordnance Datum
AQMA	Air Quality Management Area
AQO	Air Quality Objective
ARG	Amphibian and Reptile Group
ATC	Automatic Traffic Count
BEIS	Business, Energy and Industrial Strategy
BESS	Battery Energy Storage System
BRE	Building Research Establishment
BTO	British Trust for Ornithology
CCIA	Climate Change Impact Assessment
CCTV	Closed Circuit Television
CEMP	Construction Environmental Management Plan
CIRIA	Construction Industry Research and Information Association
CO <sub>2</sub>	Carbon Dioxide
CTMP	Construction Traffic Management Plan
DC	Direct Current

DCO	Development Consent Order
DECC	Department of Energy and Climate Change
oDEMP	Outline Decommissioning Environmental Management Plan
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
DTMP	Decommissioning Traffic Management Plan
DUKES	Digest of UK Energy Statistics
EcIA	Ecological Impact Assessment
EIA	Environmental Impact Assessment
EMF	Electromagnetic Fields
EPS	European Protected Species
EPUK	Environmental Protection UK
ES	Environmental Statement
FRA	Flood Risk Assessment
FTE	Full Time Equivalent
GCN	Great Crested Newt
GVA	Gross Value Added
GHG	Greenhouse Gas

GI	Green Infrastructure
HER	Historic Environment Record
HGV	Heavy Goods Vehicle
HPI	Habitats of Principal Importance
HSI	Habitat Suitability Index
IAQM	Institute of Air Quality Management
ICNIRP	International Commission on Non-Ionizing Radiation Protection
IEMA	Institute of Environmental Management and Assessment
JNCC	Joint Nature Conservation Committee
LAQM.TG	Local Air Quality Management Technical Guidance
kV	Kilovolt
LGV	Light Good Vehicles
LCC	Lincolnshire County Council
LRC	Lincolnshire Environmental Records Centre
LRERC	Leicestershire and Rutland Environmental Records Centre
LRN	Local Road Network
LVIA	Landscape and Visual Impact Assessment
LWS	Local Wildlife Site

MAGIC	Multi-Agency Geographic Information for the Countryside
MW	Megawatts
NCC	Northamptonshire County Council
NERC	Natural Environment and Rural Communities
NGET	National Grid Electricity Transmission
NIC	National Infrastructure Commission
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NRMM	Non-Road Mobile Machinery
NSIP	Nationally Significant Infrastructure Project
NTS	Non-Technical Summary
oBSMP	Outline Battery Safety Management Plan
oCEMP	Outline Construction Environmental Management Plan
oLEMP	Outline Landscape and Ecological Management Plan
PCC	Peterborough City Council
PINS	Planning Inspectorate
PIR	Passive Infra-Red
POC	Point of Connection

PRF	Potential Roost Feature
PRoW	Public Rights of Way
PV	Photovoltaic
PWS	Public Water Supplies
RBMP	River Basin Management Plan
RCC	Rutland County Council
RPG	Registered Park and Garden
SFRA	Strategic Flood Risk Assessment
SoCC	Statement of Community Consultation
SKDC	South Kesteven District Council
SPA	Special Protection Area
SPG	Supplementary Planning Guidance
SPI	Species of Principal Importance
SPZ	Source Protection Zone
SRN	Strategic Road Network
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage Strategy
TAG	Transport Analysis Guidance



WCMP	Water and Construction Management Plan
WFD	Water Framework Directive
Zol	Zone of Influence

<b>Glossary</b>	
Applicant	Mallard Pass Solar Farm Limited
EIA Regulations	Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, as amended
Site	The land that falls within the redline boundary
Solar Infrastructure	Proposed components including: solar PV modules; PV module mounting structures; inverters; transformers; switchgear; substation and control buildings; onsite cabling; electricity export and connection to the National Electricity Transmission System; fencing, security and ancillary infrastructure; access tracks; and battery energy storage systems (BESS).
Solar PV Site	The area within the Site that is being considered for potential solar development, the substation and areas for mitigation and enhancement

## **1.0 Introduction**

### **1.1. Overview**

- 1.1.1. This Environmental Impact Assessment (EIA) Scoping Request has been prepared by LDA Design Limited on behalf of Mallard Pass Solar Farm Ltd (the Applicant), to formally request an EIA Scoping Opinion for the installation of solar photovoltaic (PV) generating panels and associated infrastructure which would allow for the generation of an anticipated 350 megawatts (MW) (the 'Proposed Development') at land at Mallard Pass, Essendine (the 'Site').
- 1.1.2. As the development will generate over 50MW it is recognised as a Nationally Significant Infrastructure Project (NSIP), and therefore requires a Development Consent Order (DCO) under the Planning Act 2008.
- 1.1.3. This Scoping Request has been prepared in accordance with Regulation 10(1) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, as amended, hereafter referred to as the 'EIA Regulations'. In line with the requirements of Regulation 10(3) of the EIA Regulations, this request contains the following information to assist the Planning Inspectorate (PINS), as the relevant authority, in adopting a Scoping Opinion:
- A plan sufficient to identify the land;
  - A description of the proposed development, including its location and technical capacity;
  - An explanation of the likely significant effects of the development on the environment; and
  - Such other information or representations as the person making the request may wish to provide or make.
- 1.1.4. This Scoping Request has been prepared to provide an overview of the likely significant environmental effects that have been considered in scoping the EIA for the Proposed Development. It sets out the intended scope and

the methodologies for assessments of the likely significant environmental effects to be reported in the Environmental Statement (ES) which will accompany the application for development consent. This Scoping Request also provides the justification and rationale for scoping out environmental topics or receptors where it is considered that significant effects are unlikely to arise as a result of the Proposed Development.

- 1.1.5. The EIA Scoping Request has been prepared with reference to PINS Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements, which contains guidance on EIA Scoping.

## **1.2. The Applicant**

- 1.2.1. Mallard Pass Solar Farm Limited is a subsidiary of Windel Solar 3 Ltd and Canadian Solar Inc.
- 1.2.2. Windel Solar 3 Ltd, founded in 2018, is a privately held company that specialises in the development and asset management of renewable energy projects and low carbon, including solar, battery energy storage systems (BESS), onshore wind and green hydrogen technologies with projects ranging from 10MW to 320MW output across England and Wales. Windel Solar 3 Limited work closely with landowners, giving them the opportunity to diversify their income stream by leasing their land for solar development.
- 1.2.3. Canadian Solar Inc was founded in 2001 in Canada and is one of the world's largest solar power companies. It is a leading manufacturer of solar PV modules and provider of solar energy solutions and has a geographically diversified pipeline of utility-scale solar power projects in various stages of development. Over the past 19 years, Canadian Solar Inc

has successfully delivered over 49 GW of premium-quality, solar PV modules to customers in over 150 countries.

### **1.3. Consenting Regime and Need for Environmental Impact Assessment**

- 1.3.1. Under Section 14(1)(a) and 15(2) of the Planning Act 2008, the Proposed Development is defined as a Nationally Significant Infrastructure Project (NSIP) as an onshore generating station in England with an output exceeding 50MW.
- 1.3.2. The legislative framework for EIA is set by European Directive 2011/92/EU and amended by Directive 2014/52/EU (referred to as the EIA Directive). The EIA Directive requires EIA to be completed in support of an application for development consent for certain types of projects. For projects of this type in England, the European legislative requirements are transposed into UK law by The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, as amended.
- 1.3.3. EIA is not required for all development. EIA Regulations specify which developments are required to undergo EIA and schemes relevant to the NSIP planning process are listed under either of 'Schedule 1' or 'Schedule 2'. Those developments listed in Schedule 1 must be subject to EIA, while developments listed in 'Schedule 2' must only be subjected to EIA if they are considered "*likely to have significant effects on the environment by virtue of factors such as its nature, size or location*". The criteria on which this judgement must be made are set out in Schedule 3 of the EIA Regulations.
- 1.3.4. The Proposed Development falls under Schedule 2 Part 3(a) development of the EIA Regulations as it constitutes "*industrial installations for the production of electricity, steam and hot water...*".

- 1.3.5. It is considered that due to the Proposed Development's nature, size and location that it has the potential to have significant effects on the environment and therefore constitutes EIA Development as defined in the EIA Regulations. In accordance with Regulation 81(b) of the EIA Regulations, the Applicant will provide an Environmental Statement in support of the DCO Application.
- 1.3.6. The aim of the EIA process is to ensure that the Proposed Development has due regard for the environment, minimises adverse environmental effects and takes advantage of opportunities for environmental enhancement.
- 1.3.7. This Scoping Report has been commissioned by the Applicant to assist PINS in preparing a Scoping Opinion under the EIA Regulations, setting out the scope of the information that should be contained in the ES. The information contained within this Scoping Request is based on initial design and environmental studies carried out by the EIA team to date, informed by early consultation with statutory consultees, where applicable. This level of detail is sufficient to assist PINS in their consideration of the proposed scope and content of the EIA and ES.

#### **1.4. Purpose of this Scoping Report**

- 1.4.1. The process of identifying the issues to consider within the ES and establishing the scope of the assessment, is known as 'scoping'. Although scoping is not a mandatory requirement under the EIA Regulations, it is recognised as a useful preliminary procedure which helps to identify the main effects that a proposed development is likely to have on the environment.
- 1.4.2. This Scoping Report provides information on the Site location, the Proposed Development, the likely significant effects on the environment, and any other such information that is considered relevant, including the proposed

approach to assessment, in specific accordance with Regulation 10(3) of the EIA Regulations. The environmental topics which are proposed to be included in the EIA scope, and those which are not, are presented in Chapters 7 and 8 of this report, respectively.

1.4.3. Overall, and in line with best practice, this scoping exercise aims to achieve the following objectives:

- 1) Establish the availability of existing baseline data;
- 2) Define a survey and assessment framework from which a comprehensive EIA spanning those environmental topics which are likely to experience significant environmental effects can be undertaken;
- 3) Invite consultees to comment on the proposed EIA, in terms of:
  - The potential significant environmental effects which require assessment;
  - The assessment methodology for each environmental topic proposed to be scoped into the EIA process;
  - Sources of information;
  - Issues of perceived concern; and
  - Any other areas which should be addressed in the assessment.

## **1.5. Structure of Scoping Request**

1.5.1. The Scoping Request is structured as follows:

- Chapter 2: Provides a description of the Site description and context;
- Chapter 3: Provides a description of the Proposed Development based upon current planning and design work, along with the anticipated construction process and timescales as is known at this stage;
- Chapter 4: Overview of the consultation process;
- Chapter 5: Consenting process and planning policy context;

- Chapter 6: Overview of the EIA process, EIA methodology and the manner in which the information will be provided and presented within the Environmental Statement;
- Chapter 7: Environmental topics which are to be scoped into the EIA;
- Chapter 8: Environmental topics which are to be scoped out of the EIA;
- Chapter 9: Approach to assessment of cumulative effects; and
- Chapter 10: Summary.

## 1.6. EIA Consultant Team

1.6.1. The EIA Consultants who have contributed to the preparation of this Scoping Request are set out in Table 1.1.

**Table 1.1: EIA Consultant Team**

<b>EIA Scoping Topic</b>	<b>Organisation</b>
EIA Coordination	LDA Design
Landscape and Visual	LDA Design
Ecology and Biodiversity	BSG Ecology
Arboriculture	Hayden's Arboricultural Consultants Limited
Cultural Heritage and Archaeology	Cotswold Archaeology
Access and Highways	Velocity Transport Planning
Noise and Vibration	Hoare Lea
Air Quality	Hoare Lea
Water Resources and Ground Conditions	Arcus Consulting

<b>EIA Scoping Topic</b>	<b>Organisation</b>
Land Use	Kernon Countryside Consultants
Glint and Glare	Pager Power
Climate Change Impact Assessment	Arcus Consulting
Socio-economics	LDA Design
Major Accidents and/or Disasters	LDA Design
Human Health	LDA Design
Waste	LDA Design



## **2.0 Site Description and Context**

### **2.1. Site Location**

- 2.1.1. The Site is located at OS grid reference TF052115 (approximate centre of the solar PV Site). The solar PV Site comprises the area that is being considered for solar arrays, onsite substation and areas for potential mitigation and enhancement, as indicated on Figure 2.1. The solar PV Site comprises 54 agricultural fields and blocks of non-ancient woodland. Hedges, trees and woodland form the boundaries to the fields within the Site. There is potential requirement for highways works to facilitate construction traffic accessing the solar PV Site from the Strategic Highway Network. The Site (consisting of the solar PV Site and area for potential highways works) equates to approximately 900ha. The Site boundary and the extents of the solar PV Site is provided at Figure 2.1.
- 2.1.2. The solar PV Site is, for the purposes of the EIA process, subdivided into a series of numbered fields. The plan showing the field number system of the solar PV Site is provided at Figure 2.2.
- 2.1.3. The Site falls across two administrative boundaries: approximately 650ha of the Site falls within Rutland County Council (RCC) and the remaining 250ha of the Site falls within South Kesteven District Council (SKDC). The Grantham – Peterborough (East Coast Main Line) railway line dissects the Site on a general north-west – south-east alignment. The solar PV Site, within which the solar arrays and associated infrastructure are to be located, is located to the immediate south, east and west of Essendine and approximately 800m east of Ryhall. The outskirts of Stamford is located approximately 1km south-west of the solar PV Site. The centre of Peterborough is located approximately 16km south-east of the solar PV Site.

2.1.4. A summary of the baseline environment is provided below with further detail provided within each of the individual environmental topic chapters.

## **2.2. Landform and Topography**

2.2.1. The Site's topography Ranges between 15 – 60m above ordnance datum (AOD) with the lowest elevation running through the centre of the Site, partly along the route of the railway line. The highest elevation of the Site is present in the north-western extent of the Site. A plan showing the Site topography is provided at Figure 2.3.

## **2.3. Access and Recreation**

2.3.1. The Site is currently accessible from a number of existing field accesses capable of accommodating large agricultural machinery.

2.3.2. In terms of the Strategic Road Network (SRN), the A1, which connects Grantham and Stamford, is located approximately 6.0km west of the centre of the solar PV Site. The A15, which connects Bourne and Peterborough, is located approximately 6.5km east of the centre of the solar PV Site. The A1175 is located approximately 4.5km south of the centre of the solar PV Site, which provides a vehicular link between Stamford and Market Deeping and a link between Stamford and Oakham along the A606. The A6121, which connects Ryhall, Essendine and Carlby, separates the north-western extent of the solar PV Site from the remainder, routing on a general north-east to south-west alignment. The B1176 segments the north-westernmost extent of the solar PV Site and is routed on a general north-south direction.

2.3.3. There are six Public Rights of Way (ProW) which cross the solar PV Site. ProW footpath BrAW/7/1 routes through the easternmost extent of the solar PV Site in a general north-east to south-west alignment. ProW footpath BrAW/3/1 crosses into the north-eastern extent on the solar PV Site in the vicinity of Grange Farm and ProW footpath BrAW/9/1, which routes parallel

to the north of ProW footpath BrAW/3/1 crosses the solar PV Site east-west into Braceborough Wood, which is located immediately adjacent to the north-eastern boundary of the solar PV Site. ProW footpath Uffi/5/1 crosses the south-western extent of the solar PV Site in an east-west direction. ProW bridleway BrAW/1/1 crosses the eastern extent of the solar PV Site north-south, between the local road to the north and the railway line to the south. ProW bridleway E169/1 routes through the north-western extent of the solar PV Site between the A6121 and B1176 in a general north-west to south-east alignment.

2.3.4. The Macmillan Way recreational route follows the south-western boundary before crossing the south-central area and continues along the northern boundary of the south-western extent of the solar PV Site.

2.3.5. A plan showing the access and recreation resources is provided at Figure 2.4 of this report.

## **2.4. Water Resources**

2.4.1. The West Glen River runs through the solar PV Site on a general north-west – south-east alignment and separates the north-western extent of the solar PV Site from the remainder of the solar PV Site. A network of drains and streams, which follow field boundaries, are also present across the solar PV Site. A pond is present in the central-eastern area of the solar PV Site.

2.4.2. The Site is predominantly located in Flood Zone 1, which is an area classed as having a low risk from fluvial and tidal flooding (less than 1 in 1,000 annual probability, as indicated by the Environment Agency Flood Map for Planning). The Site is predominantly located within an area of very low risk from surface water flooding. Areas of low to high surface water flood risk are located in the northern and western and central areas of the Site, associated with the West Glen River and its tributaries.

- 2.4.3. The West Glen River has a River Basin Management Plan (RBMP) ecological classification of 'Moderate'.
- 2.4.4. A plan showing water resources in relation to the Site is provided at Figure 2.5 of this report.

## **2.5. Agricultural Land**

- 2.5.1. The solar PV Site comprises arable fields, which are segmented by hedgerows, drains and ditches and woodland blocks. The Agricultural Land Classification (ALC) mapping published by Natural England indicates that the solar PV Site comprises of predominantly Grade 3 agricultural land, with an area of Grade 2 agricultural land located in the southern extent of the Site. A small area in the westernmost extent of the solar PV Site is located within non-agricultural land use.
- 2.5.2. A plan showing the ALC grades across the solar PV Site is provided at Figure 2.6 of this report.

## **2.6. Ecology and Biodiversity**

- 2.6.1. The Site comprises predominantly arable agricultural land, a network of hedgerows, drains and ditches and blocks of woodland. Areas of improved grassland, species poor semi improved grassland, semi-improved neutral grassland, tall ruderal and scrub are also present on Site. Woodland across the Site consists of plantation and semi-natural broadleaved woodland.

Ancient woodland is also present immediately adjacent to the Site boundary to the north-east of the Site.

### ***Statutory Designated Sites***

- 2.6.2. There are two international designated sites within 10km of the Site, and seven national designated sites within 2km, including: Rutland Water SPA & Ramsar Site, Ryhall Pasture, Little Warren Verges & Newell Wood SSSI.

### ***Rutland Water SPA***

- 2.6.3. Rutland Water SPA, located approximately 4.8km south-west of the Site is designated for supporting the following non-breeding waterbird assemblages as qualifying features:

- Gadwall, *Anas strepera*; and
- Northern shoveler, *Anas clypeata*.

### ***Rutland Water Ramsar Site***

- 2.6.4. Rutland Water Ramsar site is designated for comprising a large, artificial freshwater reservoir fringed by a mosaic of wetland habitats that display a succession from open water communities to semi-natural mature woodland. The Ramsar site is a regionally important area for breeding and passage birds. Wintering waterbirds regularly exceed 20,000 individuals and include internationally important numbers of ducks and nationally important numbers of several Anatidae (ducks, geese, swans).

### ***Ryhall Pasture and Little Warren Verges SSSI***

- 2.6.5. The Ryhall Pasture and Little Warren Verges SSSI is located adjacent to the north-western boundary of the Site. The SSSI is designated for supporting semi-natural limestone grassland and species-rich roadside verges comprising rich calcareous flora, and adjacent hedges which are rich

in shrub species, providing habitat for a range of insect species characteristic of grassland and woodland edge.

### ***Newell Wood SSSI***

- 2.6.6. Newell Wood SSSI, which is located approximately 340m north-west of the Site. Newell Wood SSSI is designated for being one of the best remaining examples of acid lowland woodland in Leicestershire and is representative of semi-natural woodland developed on light soil in Central and Eastern England.

### ***Non-statutory Sites***

- 2.6.7. A total of 98 non-statutory Local Wildlife Sites (LWS) are present within 2km of the Site. The majority of these are designated for habitats (predominantly hedgerows, grassland and woodland) with many also featuring locally or nationally scarce.
- 2.6.8. Two LWS (the Carlby/Essendine Verge LWS and Essendine Dismantled Railway Embankment LWS) are located onsite, with both LWSs featuring priority habitats (calcareous grassland and a stream) and nationally scarce species. An additional 25 sites are directly adjacent to the Site boundary or within 10m (generally separated by a minor road). Most of these LWSs are protected hedgerows of lengths of road verge.

## **2.7. Cultural Heritage**

- 2.7.1. The Site is not subject to any statutory heritage designations. There are four scheduled monuments within 1km of the solar PV Site boundary, including: Essendine Castle, located approximately 50m from the Site Boundary to the north of the central extent of the Site; Castle Dyke, located approximately 300m north-west of the Site; and Shillingthorpe Park medieval settlement and Causeway Camp, which are located approximately 300m to the east

and south of the Site, respectively. One further scheduled monument, the site of a Roman town, is located immediately south of the proposed construction access route at Casterton.

2.7.2. There are two Registered Parks and Gardens (RPGs) within 1km of the solar PV Site, comprising the Grade II Greatford Hall, located approximately 600m east of the Site, and the Grade II Uffington Park, which is located approximately 650m south of the solar PV Site.

2.7.3. The Grade II\* Listed Church of St Mary lies approximately 50m from the solar PV Site. In the wider landscape there are a collection of Listed Buildings within the village of Carlby, approximately 1km north of the solar PV Site, most noteworthy being the Grade I Church of St Stephen. Further collections of listed buildings lie in the villages of Belmesthorpe and Ryhall, over 1km to west of the Site and within Braceborough, lying over 500 north-east of the Site. Banthorpe Lodge (Grade II) lying approximately 250m east of the central extent of the solar PV Site is one of several listed post-medieval farmsteads, agricultural buildings or rural dwellings lying in the wider landscape of the Site.

## **2.8. Air Quality**

2.8.1. The Site is not located within an Air Quality Management Area (AQMA). The nearest AQMA, declared for concentrations of Nitrogen Dioxide (NO<sub>2</sub>) by SKDC, is located approximately 23km north-west of the Site in Grantham.

## **2.9. Ground Conditions**

2.9.1. The solar PV Site predominantly comprises freely draining shallow lime-rich soils over chalk or limestone with an area of slowly permeable, seasonally

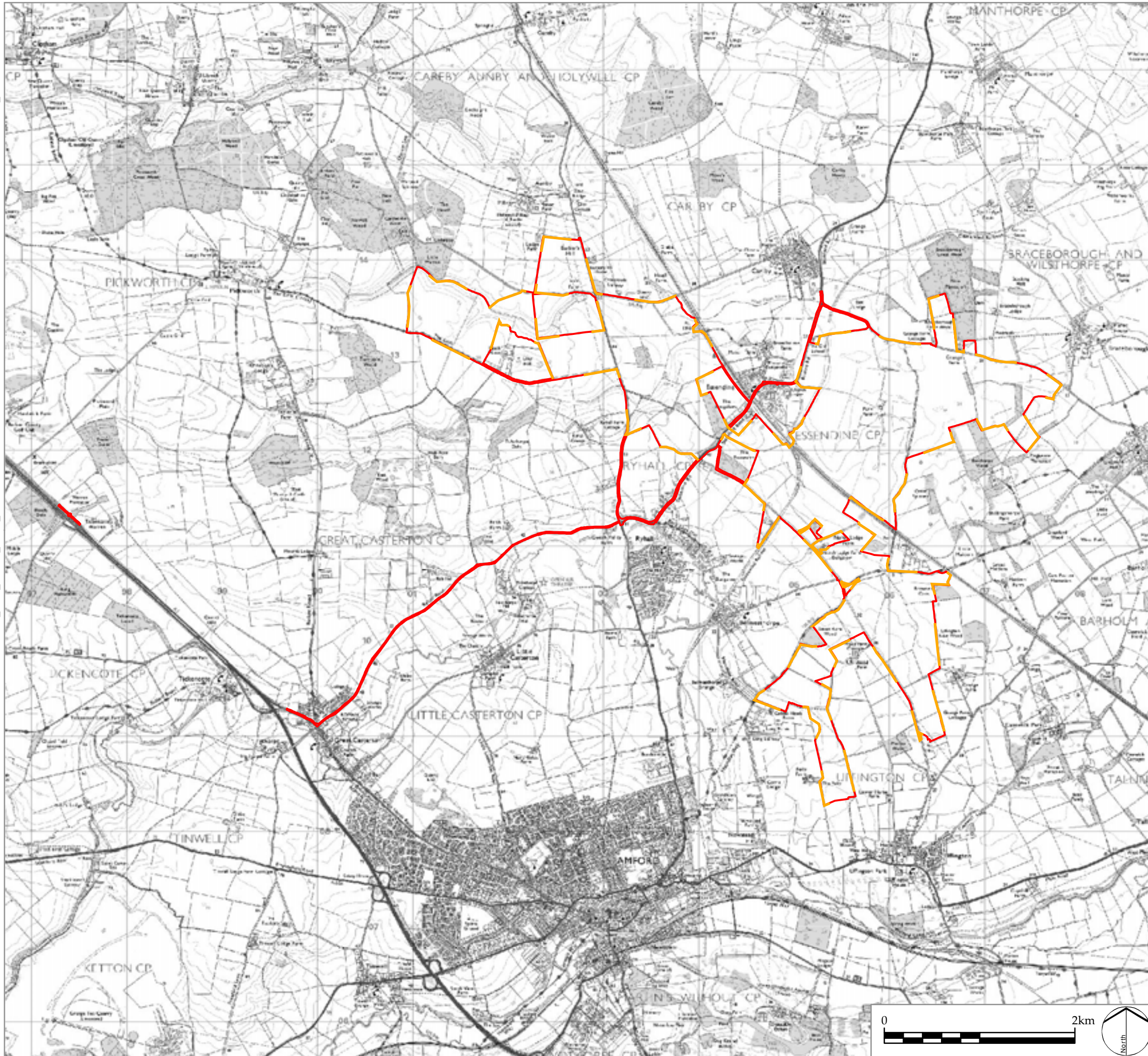
wet, slightly acid but base-rich loamy and clayey soil type which has an impeded drainage characteristic in the eastern extent of the Site.

2.9.2. The bedrock geology of the solar PV Site is characterised by the following formations:



- Upper Lincolnshire Limestone Member – Limestone;
- Rutland Formation – Argillaceous Rocks With Subordinate Sandstone And Limestone;
- Blisworth Limestone Formation – Limestone;
- Blisworth Clay Formation – Mudstone;
- Kellaways Clay Member – Mudstone;
- Kellaways Sand Member – Sandstone And Siltstone, Interbedded;
- Cornbrash Formation – Limestone; and
- Oxford Clay Formation – Mudstone.

2.9.3. The solar PV Site is characterised by a high groundwater vulnerability. The northern and western extent of the solar PV Site is located within Zone II (Outer Protection) Source Protection one (SPZ).





LEGEND

-  Site boundary
-  Solar PV Site boundary

# LD A DESIGN

PROJECT TITLE  
**MALLARD PASS SOLAR FARM:  
 EIA SCOPING REPORT**

DRAWING TITLE  
**Site Location Plan**

ISSUED BY	Oxford	T: 01865 887050
DATE	February 2022	DRAWN AG
SCALE @A3	1:40,000	CHECKED DB
STATUS	Final	APPROVED RP

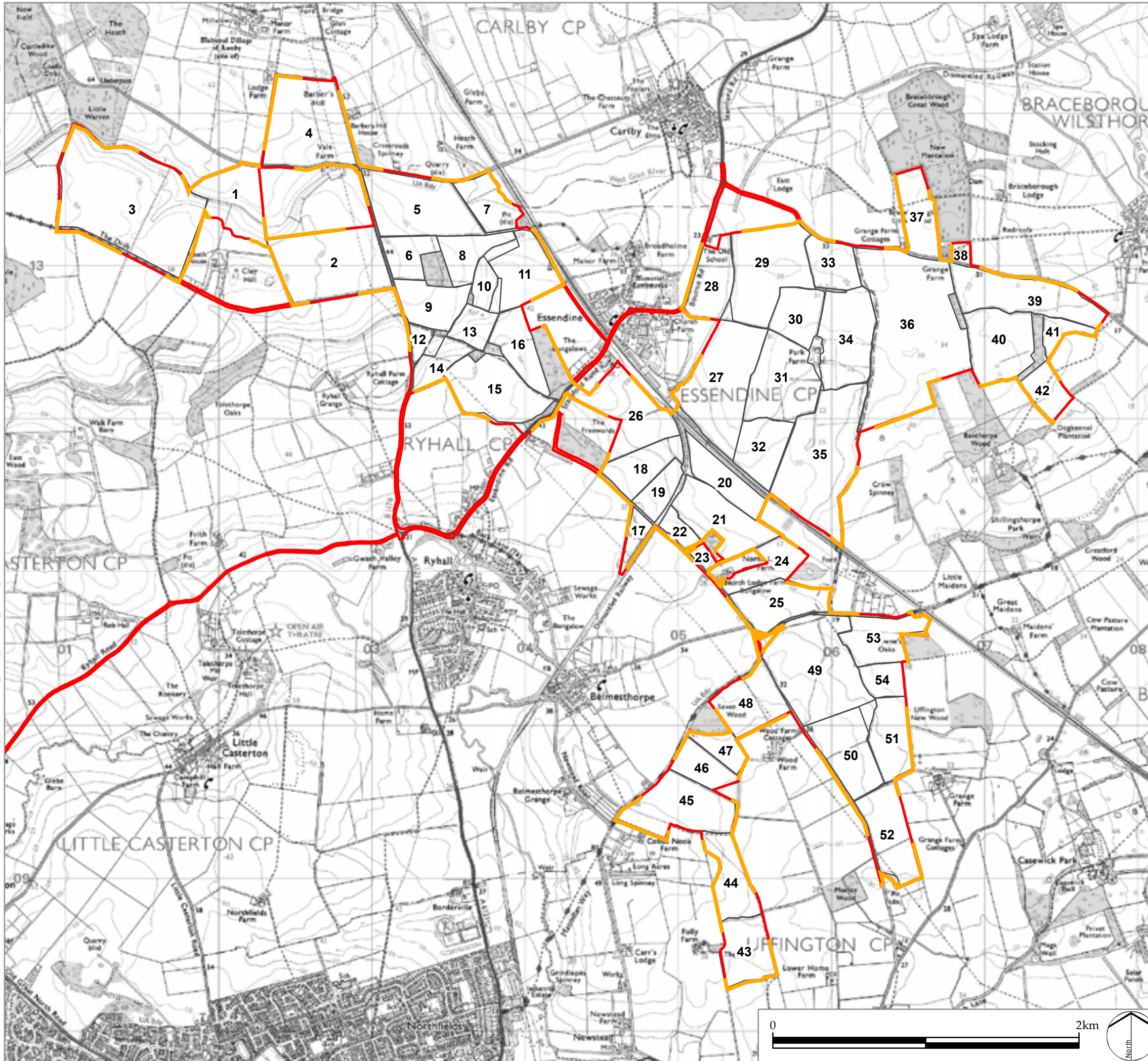
**DWG. NO. Figure 2.1**

No dimensions are to be scaled from this drawing.  
 All dimensions are to be checked on site.  
 Area measurements for indicative purposes only.

© LDA Design Consulting Ltd. Quality Assured to BS EN ISO 9001 : 2008

Sources: Ordnance Survey, Esri





LEGEND

- Site boundary
- Solar PV Site boundary

# LDĀ DESIGN

PROJECT TITLE  
**MALLARD PASS SOLAR FARM:  
 EIA SCOPING REPORT**

DRAWING TITLE  
**Field Numbering System**

ISSUED BY	Oxford	T: 01865 887050
DATE	February 2022	DRAWN AG
SCALE @A3	1:25,000	CHECKED DB
STATUS	Final	APPROVED RP

**DWG. NO. Figure 2.2**

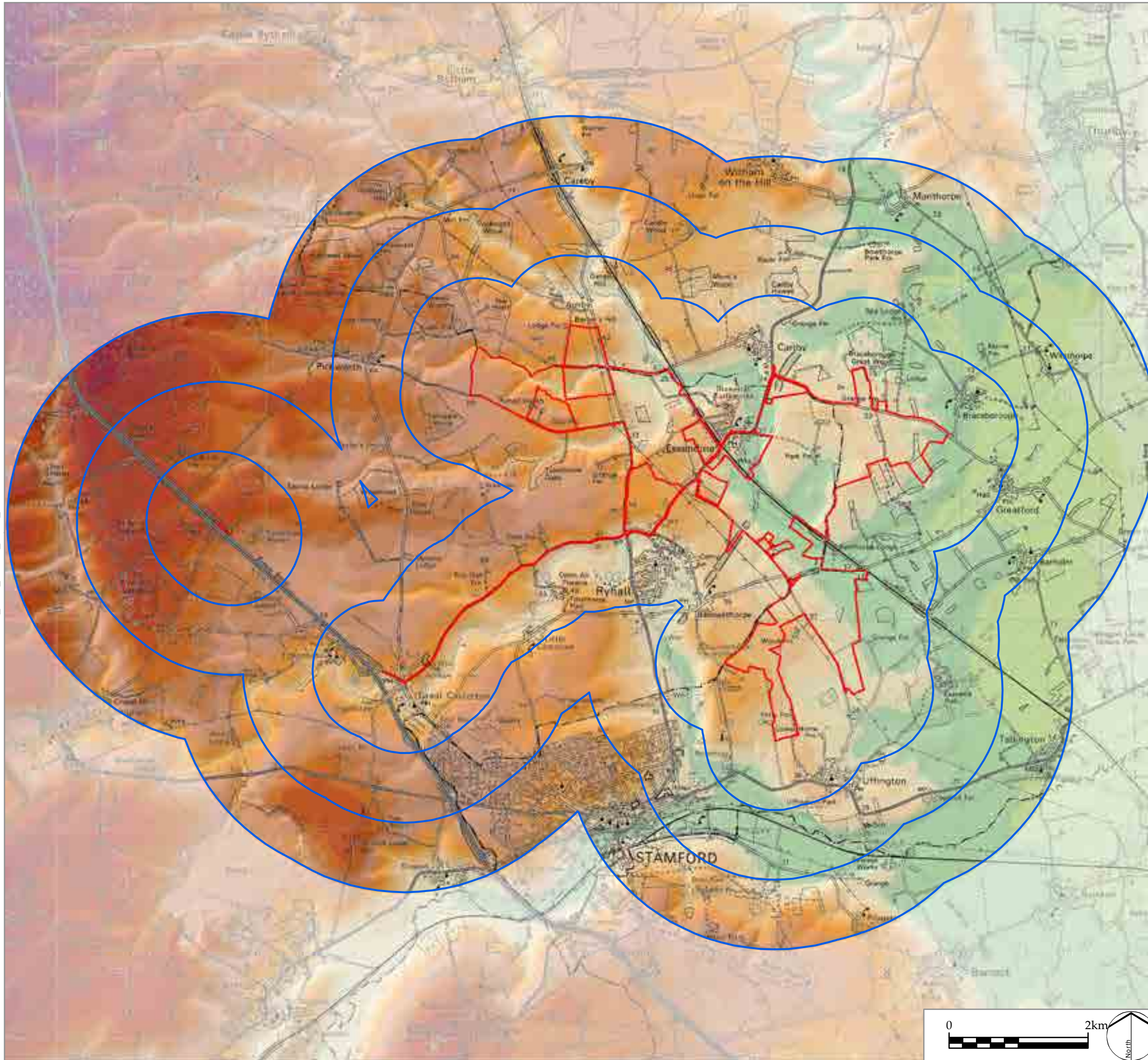
No dimensions are to be scaled from this drawing.  
 All dimensions are to be checked on site.  
 Area measurements for indicative purposes only.

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Sources: Ordnance Survey



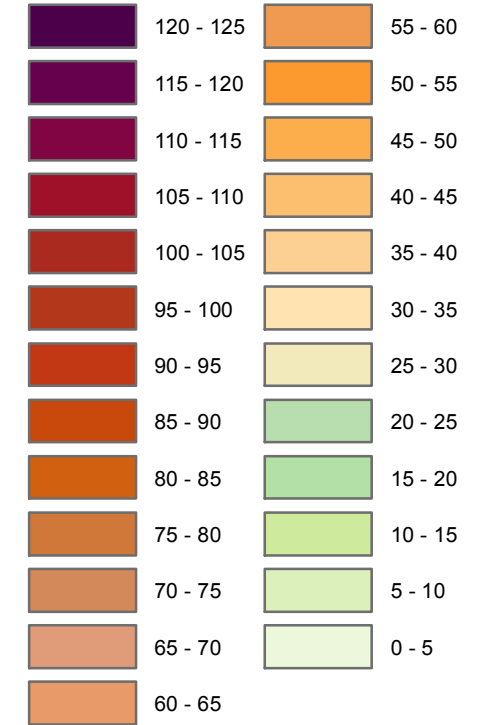




LEGEND

- Site boundary
- Distance from Site boundary (1, 2 and 3km)

Elevation (m AOD)



# LDĀ DESIGN

PROJECT TITLE  
**MALLARD PASS SOLAR FARM:  
 EIA SCOPING REPORT**

DRAWING TITLE  
**Topography**

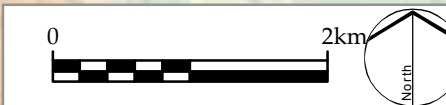
ISSUED BY	Oxford	T: 01865 887050
DATE	January 2022	DRAWN VW
SCALE @A3	1:55,000	CHECKED DB
STATUS	Final	APPROVED RP

**DWG. NO. Figure 2.3**

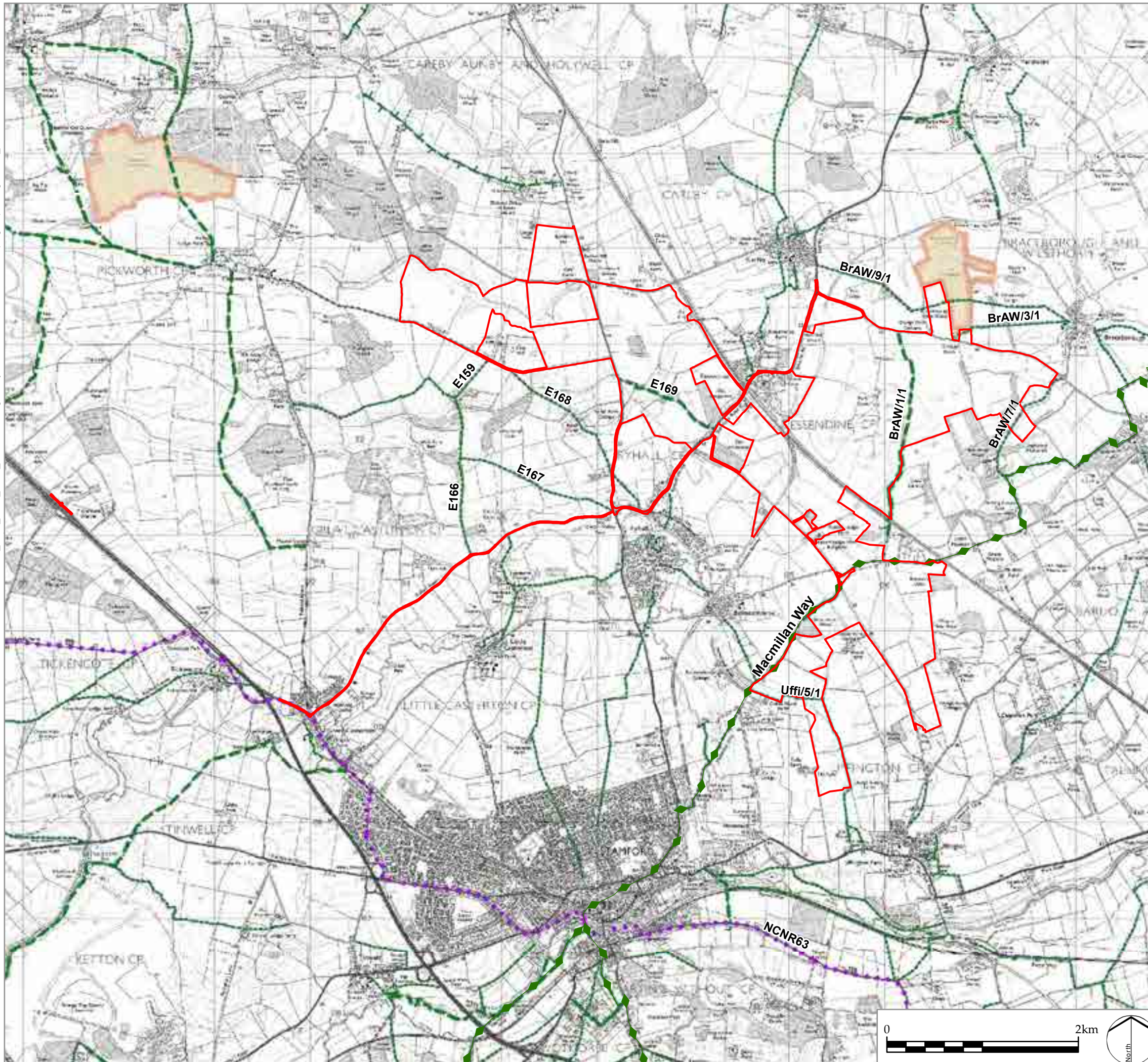
No dimensions are to be scaled from this drawing.  
 All dimensions are to be checked on site.  
 Area measurements for indicative purposes only.

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Sources: Ordnance Survey, NextMap25







- LEGEND**
- Site boundary
  - National Cycle Network Route
  - Open Access Land
  - Other routes with public access
  - ◆◆ Long-distance footpath
- Public Rights of Way**
- - - - - Footpath
  - · - · - Bridleway
  - + + + Byway open to all traffic
  - + - + Restricted Byway

# LDĀDESIGN

PROJECT TITLE  
**MALLARD PASS SOLAR FARM:  
EIA SCOPING REPORT**

DRAWING TITLE  
**Access and Recreation**

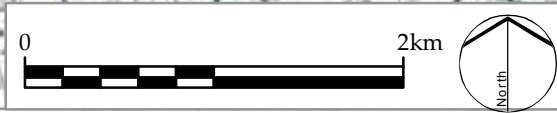
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DATE	January 2022	DRAWN AG
SCALE @A3	1:40,000	CHECKED DB
STATUS	Final	APPROVED RP

**DWG. NO. Figure 2.4**

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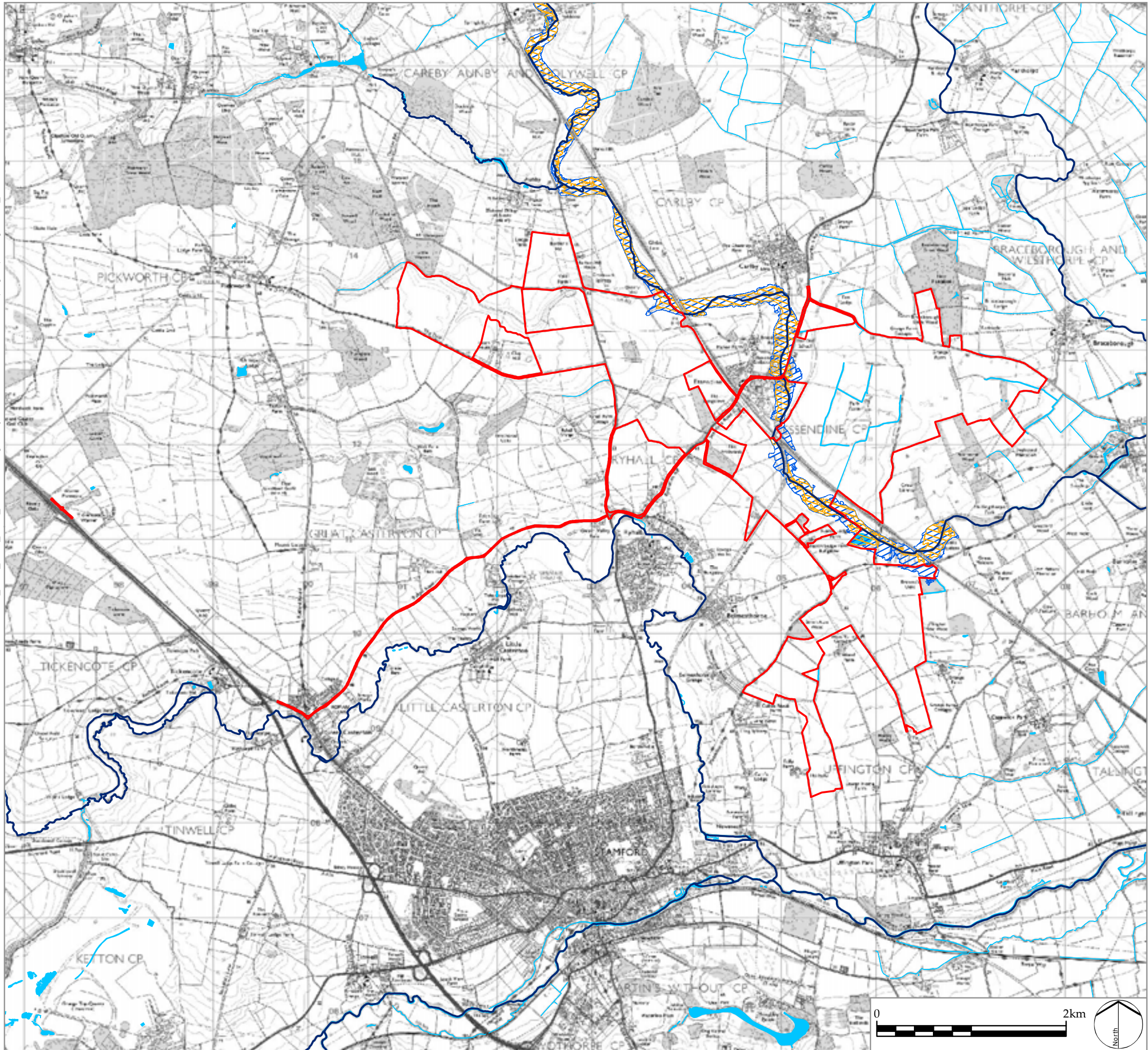
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Sources: Ordnance Survey, ADAS, DCLG, Defra, Environment Agency, Historic England, Natural England, SUSTRANS










<ACP>Z:\17863\_NSIP\_Solar\_Farm\_Confidential\8gis\Projects\Constraints Plans for Scoping Report\Figure 2.5\_Water Resources & EA Flood Map.mxd</ACP>



**LEGEND**

-  Site boundary
-  Main River
-  Surface waterbodies
-  1 in 20 Year Flood Extents
-  1 in 100 Year (+20%) Flood Extents

# LDĀDESIGN

PROJECT TITLE  
**MALLARD PASS SOLAR FARM:  
EIA SCOPING REPORT**

DRAWING TITLE  
**Water Resources & Flood Extents**

ISSUED BY	Oxford	T: 01865 887050
DATE	January 2022	DRAWN AG
SCALE @A3	1:40,000	CHECKED DB
STATUS	Final	APPROVED RP

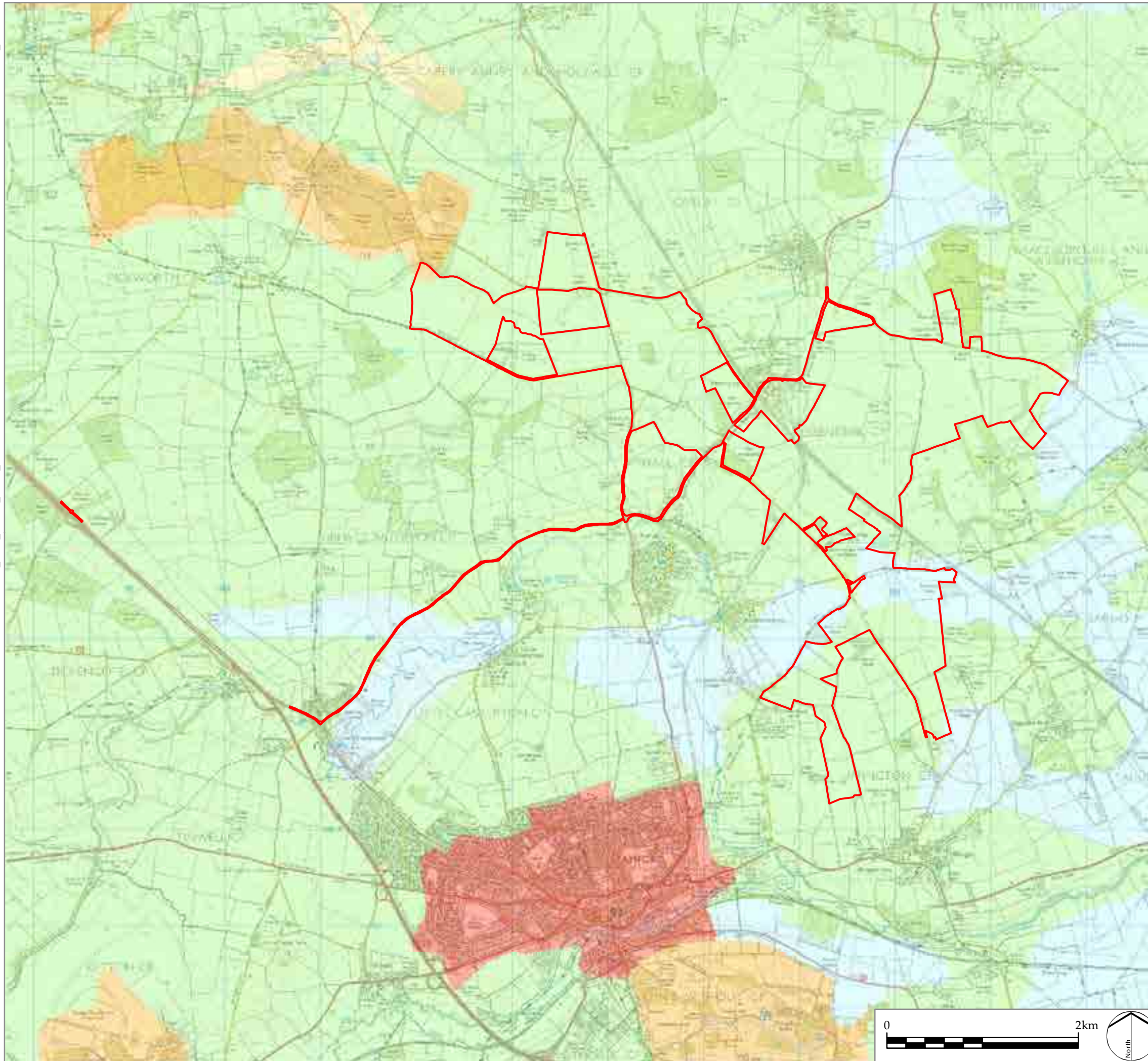
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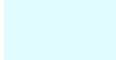

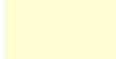


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Sources: Ordnance Survey, ADAS, DCLG, Defra, Environment Agency, Historic England, Natural England, SUSTRANS





LEGEND

-  Site boundary
- Agricultural Land Classification**
-  Grade 2
-  Grade 3
-  Grade 4
-  Non Agricultural
-  Urban

# LDĀDESIGN

PROJECT TITLE

**MALLARD PASS SOLAR FARM:  
EIA SCOPING REPORT**

DRAWING TITLE

**Agricultural Land Classification**

ISSUED BY	Oxford	T: 01865 887050
DATE	January 2022	DRAWN AG
SCALE @A3	1:40,000	CHECKED DB
STATUS	Final	APPROVED RP

**DWG. NO. Figure 2.6**

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Sources: Ordnance Survey, Natural England

### **3.0 Description of the Proposed Development**

#### **3.1. Proposed Development**

3.1.1. The key components of the Proposed Development comprise the following:

- Solar PV modules;
- PV module mounting structures;
- Inverters;
- Transformers;
- Switchgear;
- Substation and control buildings;
- Onsite cabling;
- Electricity export and connection to the National Electricity Transmission System;
- Fencing, security and ancillary infrastructure;
- Access tracks;
- Battery energy storage systems (BESS); and
- Green infrastructure (GI).

3.1.2. Further details for each of the key components are set out below.

3.1.3. An illustrative layout, that identifies the areas that are being considered for potential solar development, the onsite primary substation and areas for mitigation and enhancement, is shown on Figure 3.1. With the exception of onsite cabling, access tracks and green infrastructure, it is not anticipated that the key components, listed above, will be located within the areas identified as potential mitigation and enhancement areas. The illustrative layout was published as part of the informal Stage 1 community consultation and forms the basis of the proposed scope of this EIA Scoping Request.



### ***Solar PV Arrays***

- 3.1.4. The Proposed Development would consist of solar PV panels placed on mounting structures arranged in rows, allowing for boundary landscaping, perimeter fencing and access.
- 3.1.5. The direct current (DC) generating capacity of each PV module will depend on advances in technological capabilities at the time of construction. The PV modules will be fixed to a mounting structure in groups known as 'strings'.
- 3.1.6. Solar PV modules convert sunlight into electrical current (as DC).
- 3.1.7. There are currently two options for the mounting structures which are being considered and assessed and are described below:
- Fixed South Facing Arrays; and
  - Single Axis Tracker Arrays.

### ***Fixed South Facing Arrays***

- 3.1.8. Indicative dimensions of modules will measure 2384mm x 1303mm x 35mm. Individual panels consist of a series of bifacial, mono-crystalline cells which make up an individual panel. The mounting structures will be orientated east west and would be installed between 18 and 25 degrees to the horizontal facing south to optimise daylight absorption.





***Plate 1: Fixed South Facing Arrays***

### ***Single Axis Tracker Arrays***

- 3.1.9. Indicative dimensions of single axis tracking modules will measure 2384mm x 1303mm x 35mm. Individual panels consist of a series of bifacial, mono-crystalline cells which make up an individual panel. The mounting structures will be orientated north/south and would operate between 60 degrees from the horizontal (facing east in the morning) moving toward 0 degrees (horizontal) at midday, and up to 60 degrees from the horizontal (facing west in the evening). The modules would track from east to west throughout the day and would return to their resting position 60 degrees (facing east) over night.



***Plate 2: Single Axis Tracker Arrays***

### ***Module Height and Separation***

- 3.1.10. At the lower edge, modules would be approximately 0.8m from the ground and approximately up to 3.5m at the higher edge. The final elevations of the modules will be influenced by various design factors such as local topography, flood risk, selection of solar PV module type and configuration. The rows of solar panels would typically be spaced between 2m to 8m apart for fixed south facing and single axis tracker modules to minimise effects of overshadowing and to ensure optimal efficiency.
- 3.1.11. The total number and arrangement of PV modules will depend on the iterative layout design process and available technology at the time of construction.

### ***PV Module Mounting Structures***

- 3.1.12. The frames upon which the solar PV panels will be mounted will be pile driven or screw mounted into the ground to a typical depth of approximately

1.5m, subject to ground conditions. The option to install concrete blocks known as “shoes” may also be considered, avoiding the need for driven and screw anchored installation, therefore minimising ground disturbance. The mounting frames would likely be made of either anodised aluminium alloy or galvanised steel and would have a rough matt finish.

### ***Inverters***

3.1.13. Inverters are required to convert the DC electricity collected by the PV modules into alternating current (AC) which allows the electricity generated to be exported to the National Grid. Inverters are sized to deal with the level of voltage and intensity, which is output from the strings of PV modules.

3.1.14. There are two options for inverters:

#### String Inverters

3.1.15. String inverters are small enough to be mounted underneath the modules. String Inverters are typically 1.5m in length by 0.5m in depth by 1m in height.

#### Central Container Inverters

3.1.16. Central container inverters will typically be housed within a container measuring approximately 6m x 2.5m and 3m in height. The containers are typically externally finished in keeping with the prevailing surrounding environment, often utilising a green painted finish. The containers would typically be mounted on adjustable legs on an area of hardstanding.

### ***Transformers***

3.1.17. Transformers are required to step up the voltage of the electricity generated PV arrays before it reaches the substation. The transformers are typically

housed indoors within a container and will be distributed throughout the solar PV Site.

- 3.1.18. The footprint of the transformers will typically be 12.5m x 2.5m and 3m in height. Transformer cabins are typically externally finished in keeping with the prevailing surrounding environment, often utilising a green painted finish. The configuration of equipment will depend on the iterative design process and influenced by technical as environmental factors.

### ***Switchgears***

- 3.1.19. Switchgears are the combination of electrical disconnect switches, fuses or circuit breakers used to control, protect and isolate electrical equipment. Switchgear is used both to de-energise equipment to allow work to be done and to clear faults downstream.
- 3.1.20. Switchgears are typically housed indoors within a container with a typical footprint of 6.5m x 2.5m and 3m in height. Switchgear containers will be located either adjacent to the transformer containers or contained within the central inverter container.
- 3.1.21. The configuration of equipment will depend on the iterative design process as influenced by technical and environmental factors.



***Plate 3: Example of Electrical Infrastructure Containers located within a solar array***

### ***Substations and Control Buildings***

- 3.1.22. There will be a single primary substation (400/33KV) located near the point of connection. The substation will comprise electrical infrastructure such as the transformers, switchgear and metering equipment required to facilitate the export of electricity from the Proposed Development to the National Grid. The primary substation is also expected to include a control building which will include office space and welfare facilities as well as operational monitoring and maintenance equipment. The indicative size of the substation compound is 100m x 100m, with an approximate height of 13m

that allows for the substation and associated electrical control buildings & office/warehouse buildings.

### ***Onsite Cabling***

- 3.1.23. Low voltage cabling between PV modules and the inverters will typically be located above ground level (along a row of racks), fixed to the mounting structure, and then underground (between racks and in the central inverter's and or transformer input). Higher rated voltage cables (around 33kV) are required between the transformers, switch gear and the onsite primary substation. The dimensions of trenching will vary subject to the number of for underground cabling will vary on the number of ducts they contain but will typically be up to 1m wide with a maximum depth of 1.3m and will be dependent on the method of installation and ground conditions. Subject to engagement with utility providers there may be a requirement for horizontal directional drilling within the solar PV Site to cross beneath existing buried utilities.
- 3.1.24. Data cables will be required throughout the solar PV Site to allow for the monitoring during operation, such as the collection of data on solar irradiance from pyranometers. The data cables would typically be installed within the same trench and alongside the electrical cables.
- 3.1.25. The existing above ground powerlines across the solar PV Site are not proposed to be altered by the Proposed Development.
- 3.1.26. Onsite cabling will be required to connect the electrical infrastructure located to the east of the East Coast Main Line to the onsite primary substation which is located to the west of the East Coast Main Line. Three cable routes / methods are being considered, the location of which are shown on Figure 3.2:

- Option 1 – cables would be run through the existing brick culverts underneath the East-Coast mainline;
- Option 2 – Horizontal directional drilling underneath the East Coast mainline; or
- Option 3 – cables to be routed within the adopted highway along the A6121 and Uffington Lane.

### ***Electricity Export and Point of Connection to the National Electricity Transmission System***

3.1.27. The electricity generated by the Proposed Development is expected to be exported via a 400kV connection between the onsite 400/33kV primary substation and the Ryhall 400kV substation at Uffington Lane which is a National Grid Electricity Transmission (NGET) substation. The grid connection cables to the Ryhall 400kV substation will comprise 400kV cables within a trench, up to 1.3m in depth. The cable connection route is expected to cross Uffington Lane and run alongside the existing access track to the Ryhall 400kV substation.

3.1.28. The Grid Connection Route expected to be less than 350m from the onsite primary substation to the National Grid Ryhall Substation.

### ***Fencing, Security & Ancillary Infrastructure***

3.1.29. A fence will enclose the operational area of the Proposed Development. The fence is likely to be a 'deer fence' (wooden or metal) and approximately 2m in height. Pole mounted internal facing closed circuit television (CCTV) systems installed at a height of up to 3.5m are also likely to be deployed around the perimeter of the operational areas. Access gates will be of similar construction and height as the perimeter fencing. Clearances above ground, or the inclusion of mammal gates will be included permit the passage of wildlife.



- 3.1.30. CCTV cameras would use night-vision technology with a 50m range, which would be monitored remotely and avoid the need for night-time lighting. No areas of the Proposed Development are proposed to be continuously lit. For security requirements, operational lighting would include Passive Infra-red Detector (PID) systems which would be installed around the perimeter of the Proposed Development.
- 3.1.31. The lighting of the primary substation would be in accordance with Health and Safety requirements, particularly around any emergency exits where there would be lighting, similar to Street Lighting that operates from dusk. Otherwise there would be low level lighting on specific operational units that would again operate from dusk. All lighting would seek to limit any impact on sensitive receptors.
- 3.1.32. Lighting sensors for security purposes will be implemented around the onsite primary substation and other critical electrical infrastructure. No areas are proposed to be permanently lit.
- 3.1.33. Lightning protection masts will be located throughout the solar PV Site which will be up to 6m.





***Plate 4: Example of security fencing and monitoring cameras***

### ***Site Access***

- 3.1.34. The primary point of access to the Proposed Development during the operational period is expected to be from Uffington Road, opposite the existing access to the Ryhall 400kV substation, with vehicles approaching from the A6121 Stamford Road to the north. This point of access would provide access to the primary substation and control buildings.
- 3.1.35. Secondary points of access to the solar arrays will be required across the solar PV Site, the details of which will be confirmed once the general arrangement and layout of the Proposed Development is further developed, although it is anticipated that access points would be located along Carlby Road, B1176 and/or minor roads between the B1176 and Pickworth. These secondary access points, along with a network of internal tracks, will

provide operational access to the solar arrays and associated infrastructure for the purposes of management and maintenance.

### ***Access Tracks***

- 3.1.36. It is anticipated that onsite access tracks will follow the alignment of the existing agricultural tracks, where possible. New internal access tracks will be up to 3.5m wide, passing bays will be provided along the internal access tracks. The main access will be up to 6m wide to facilitate two-way HGV traffic. The internal access tracks will likely be constructed of compacted stone with excavation kept to a minimum. Where drainage is required a ditch or a swale may be located downhill of the internal access track to control any potential for surface water run-off.

### ***Battery and Energy Storage System (BESS)***

- 3.1.37. The Proposed Development will include an associated battery energy storage system (BESS). The battery-based electricity storage will allow the storage of energy generated by the solar panels at times of low demand and release to grid at times when demand is high or when solar irradiance is lower, known as load shifting. Individual batteries will be located throughout the solar PV Site, located either adjacent to the central inverters or the transformers. The batteries would be housed in containers and located adjacent (side by side) to the central inverter containers and would not be double stacked.
- 3.1.38. The precise number of individual battery storage containers will depend upon the level of power capacity and duration of energy storage.
- 3.1.39. The typical dimensions of the battery containers would measure 13.3m x 2.4m and 2.9m in height. The containers would be located on areas of hard standing, with a minimum clearance of 0.1m beneath the container and the hardstanding. The containers are typically externally finished in keeping with

the prevailing surrounding environment, often utilising a green painted finish.

**3.2. Green Infrastructure**

3.2.1. The existing hedgerows, woodland, ditches, ponds and field margins will be retained within the layout of the solar arrays, with the exception of small breaks and/or crossings required for new access tracks, security fencing and cable routes. Any breaks or crossing will be designed to use existing agricultural gateways/tracks between the fields and the width of any new breaks will be kept to a minimum.

3.2.2. The minimum offsets/buffers from the solar arrays or security, as set out in Table 3.1, will be incorporated within the design of the Proposed Development, with the exception of where access tracks, security fencing and/or cable routes are required to cross an existing feature. These offsets/buffers will be used to deliver a combination of embedded mitigation in the form of hedgerow planting and/or grass / wildflower planting. The buffers/offsets are a minimum and for example may be increased to deliver further mitigation or enhancements and/or respond to root protection areas where required.

**Table 3.1: Minimum Offsets to Landscape and Ecological Features and Designations**

<b>Landscape / Ecological Feature &amp; Designations</b>	<b>Minimum offset to solar infrastructure*</b>
Ancient Woodland & Woodland	15m
Veteran Trees	15 times the width of the stem diameter
Site boundary hedgerows	10m
Internal hedgerows	10m
Main river	10m
Ditches	6m

<b>Landscape / Ecological Feature &amp; Designations</b>	<b>Minimum offset to solar infrastructure*</b>
Local Wildlife Site	15m
Site of Special Scientific Interest	15m
Public Rights of Way	15m
Ponds not with great crested newt (GCN)	10m
Main badger setts	30m

\* with the exception of where access tracks, security fencing and/or cable routes are required to cross an existing feature; however, these will be kept to a minimum.

- 3.2.3. The existing Public Rights of Way (ProW) that cross the Site will be retained and incorporated within multifunctional green corridors. Subject to the construction phasing and methodology there may be a requirement to temporarily divert a public right of way during the construction phase, the details of which will be sought to be agreed with the relevant key stakeholders, with an appropriate temporary alternative provided.
- 3.2.4. Potential areas for mitigation and enhancement as identified on Figure 3.1 will also provide areas for green infrastructure and potentially be used to deliver a 10% net gain in biodiversity.

### **3.3. Project Parameters**

- 3.3.1. The Environmental Statement will clearly set out the parameters that have been assessed as part of the EIA, including details on the size (footprint, width and height relative to AOD), technology and locations of the different elements of the Proposed Development. The project description within in

the ES will be supported (where necessary) by drawings and elevations so the different elements of the Proposed Development.

### 3.4. Construction

#### ***Construction Programme***

- 3.4.1. The construction phase is anticipated to take 24 months and subject to being granted consent the earliest construction is anticipated to start in Summer 2026. The final programme will be dependent on the final layout design and potential environmental constraints on the timing of construction activities. The ES will provide further details of the construction activities, their anticipated duration and indicative programme of each phase of construction works.

#### ***Construction Activities***

- 3.4.2. The indicative construction activities likely to be required as provided below (not necessarily in order):

- Site preparation:
  - Delivery of construction materials, plant and equipment;
  - The establishment of the temporary construction compound(s);
  - The upgrade of existing tracks and access roads and construction of new tracks required;
  - The upgrade or construction of crossing points (bridges/culverts) over drainage ditches;
  - Marking out location of the infrastructure.
- Solar farm construction:
  - Delivery of Proposed Development components;
  - Energy farm construction and erection of module mounting structures;
  - Mounting of modules;
  - Installation of electric cabling;

- Installation of transformer containers;
  - Installation of battery storage units;
  - Construction of substation compound; and
  - Construction of onsite electrical infrastructure to facilitate the export of generated electricity.
- Testing and commissioning; and
  - Reinstatement and habitat creation.

### **Construction Access**

3.4.3. Three initial options have been considered for construction traffic (HGVs) to access the solar PV Site from the Strategic Road Network:

- Route 1 proposes to access the solar PV Site from the A1, which forms part of the SRN via the B1081 Old Great North Road, Ryhall Road, and the A6121 Essendine Road.
- Route 2 proposes to access the solar PV Site from the junction of the A47 with the A15 at Peterborough, which forms part of the SRN via the A15, the A1175 Main Road, Uffington Road, the A6121 Ryhall Road, and the A6121 Essendine Road.
- Route 3 proposes to access the solar PV Site from a similar route to that identified for Route 2 from the junction of the A47 with the A15 via the A15, Raymond Mays Way (south of Bourne), West Road, and the A6121 Stamford Road.

3.4.4. Whilst the above proposed routes have been considered and discussed with National Highways and the local highway authorities, RCC and LCC, the details of the construction traffic management plan will be developed further once additional information is available on the bespoke development requirements.

3.4.5. It is expected that a large transformer (in excess of 100 tonnes) will be required, therefore an Abnormal Indivisible Load (AIL) assessment will be undertaken. At this stage in the process, Route 1 is the preferred route for AIL and segments of this route have been included within the redline boundary extents as initial swept path analysis along this route has

identified the potential need for temporary localised road widening, temporary adjustments to the highway arrangement and/or street furniture, or other highway improvements between the A1 and the solar PV Site. Further consultation with the Local Highways Authority will be undertaken to discuss and agree the approach to any temporary measures required. Any works and associated mitigation measures along this route will be clearly described and assessed within the ES.

- 3.4.6. The construction traffic management plan will be developed in consultation with National Highways and Highway Officers from the local highway authorities.
- 3.4.7. The ES will provide estimations on the type of construction vehicles, the number of construction vehicles, and the numbers of staff required during the construction phase, broken down by each respective phase of construction to identify any peaks or periods where the cumulative impact of construction may be greater.
- 3.4.8. Whilst the final details are yet to be agreed, it is anticipated that the construction phase will require an average of between 100 – 150 workers onsite with a maximum of up to 400 construction staff at the peak construction period. At this stage, it is anticipated that during the peak construction period, there could be 30 Heavy Goods Vehicles (HGV) deliveries per day, which equates to 60 two-way movements. In addition, there will be Light Goods Vehicle (LGV) deliveries vehicle movements associated with deliveries and construction worker arrivals and departures. Typical construction vehicles will include excavators, ramming machines, cable layers, low loaders, crane and waste vehicles, trenchers, telehandlers, forklift trucks and tractors/trailers. The number of HGV and LGV movements will be confirmed in the Environmental Statement.

### ***Temporary Construction Compound***

- 3.4.9. During the construction phase, a primary construction compound is expected to be located onsite with one or more temporary secondary construction compound(s) provided at different locations throughout the solar PV Site, as well as temporary roadways, to facilitate access to all parts of the solar PV Site. The details of which (including location, scale and duration) will be set out and described within the ES.

### ***Construction Reinstatement and Habitat Creation***

- 3.4.10. A programme of construction reinstatement and habitat creation will commence during the construction phase. It is anticipated that areas under the solar arrays, areas outside of the areas and within the landscape buffers will be planted with a combination of native grassland mix, wildflower mixes, hedgerows and woodland will be planted in strategic locations to provide visual screening, ecological habitats in order to achieve a minimum 10% biodiversity net gain.

### ***Construction Environmental Management***

- 3.4.11. An Outline Construction Environmental Management Plan (oCEMP) will be prepared to support the application for development consent. The oCEMP will set out legislation, guidance, best practice guidance and the mitigation measures identified through the EIA to be employed during the construction phase, such as construction lighting avoiding ecological sensitive habitats. The oCEMP will form the framework for a detailed CEMP that will be agreed with the Local Planning Authorities prior to construction.

### ***Construction Traffic Management***

- 3.4.12. An outline Construction Traffic Management Plan (oCTMP) including details on construction logistics and construction worker travel will be developed



and will guide the delivery of materials, plant, equipment and staff during the construction phase..

### **3.5. Operation**

- 3.5.1. The operational life of the Proposed Development is not proposed to be specified in the application and the Applicant is not seeking a time limited consent. At the stage of preparing this Scoping Report there is nothing to suggest that there is any environmental reason why such a limit would be appropriate in planning terms. During the operational phase of the Proposed Development, onsite activities would include routine servicing, maintenance and replacement of plant and equipment as well as management of vegetation. The EIA will be carried out on the basis that the development is permanent, to ensure a worst case assessment of likely significant effects.
- 3.5.2. At this stage of the project, it is anticipated that there would typically be approximately two visits per week and up to four permanent staff onsite during the operational phase of the Proposed Development, with additional staff attending when required for maintenance, replacement of solar infrastructure and cleaning, up to a total of 20 staff per day. The ES will confirm the likely operational traffic flows.
- 3.5.3. The land underneath and around the panels could be managed through a combination of sheep grazing and/or hay/silage production in order to maintain the field vegetation during the operational phase of the Proposed Development.

### **3.6. Decommissioning**

- 3.6.1. For the purposes of the environmental impact assessment the decommissioning assessment will be based on a 40-year operational life span for the solar infrastructure. The assessment does not assume that the

operational phase will be limited to 40 years as the solar infrastructure may continue to be operating successfully and safely beyond this period.

- 3.6.2. It is proposed that the Applicant will commit to decommissioning the Proposed Development when it ceases being operational, however no time limit will be set for this. It is anticipated that all the solar infrastructure including PV modules, mounting structures, cabling, inverters, transformers, switchgear, batteries, fencing and ancillary infrastructure would be removed and recycled or disposed of in accordance with good practice and market conditions at that time of decommissioning. The future of the substation and control building would be agreed with the local planning authority and the National Grid prior to commencement of decommissioning. Any requirement to leave the internal access tracks would be discussed and agreed with the landowners at the time of decommissioning. If the Proposed Development were to be decommissioned the solar PV Site would be reinstated in agreement with the local planning authority. In advance of decommissioning commencing, a detailed Decommissioning Environmental Management Plan (DEMP), to include timescales and transportation methods, would be agreed in advance with the local planning authority. The detailed DEMP would be secured via a DCO requirement. The solar PV Site would be reinstated so far as possible to its original use after decommissioning and habitats of biodiversity mitigation and enhancement that have potential to contain protected species would be left in-situ given they could contain protected species. If these were to be removed,

appropriate surveys and licenses would be applied for at the time of decommissioning.

- 3.6.3. Decommissioning is anticipated to take approximately six months to twelve months.
- 3.6.4. The effects of the decommissioning phase are often similar to, or of a lesser magnitude than the effects generated during the construction phase and will be considered in the relevant sections of the ES. However, there can be a high degree of uncertainty regarding decommissioning as engineering approaches and technologies evolve over the operational life of the Proposed Development, and assumptions will therefore be made, where appropriate.

### **3.7. Rochdale Envelope and Design Principles**

- 3.7.1. EIA is the iterative process in which the assessment of environmental impacts is undertaken in parallel with the design process of the Proposed Development. The design and layout of the Proposed Development will evolve in response to the identification of specific constraints and opportunities. The comments made in response to this Scoping Report and the informal and statutory consultation process will also influence the final design and layout of the Proposed Development.
- 3.7.2. Advice Note Nine 'Rochdale Envelope' was published by PINS in July 2018 to address the degree of flexibility that would be considered appropriate to deal with uncertainties associated with applications for development consent.
- 3.7.3. In order to maintain flexibility in the design and layout, the Proposed Development will adopt the Rochdale Envelope approach by specifying parameter ranges which will be defined in the Project Description chapter of the ES. These parameters will be considered in detail by technical authors

in the ES to ensure the realistic worst-case effects of the Development are assessed for each potential receptor.

A series of Design Principles will be developed for the Proposed Development. The Design Principles for the Proposed Development will align with the core purposes and ambitions of the 'Design Principles for National Infrastructure' which are Climate, People, Places and Value. The purpose of the Design Principles is to set a framework that can be used by the Local Planning Authority to control the detailed design of the Proposed Development beyond the written and spatial parameters. The NIC defined the role of principles as:

*"Principles should act as reminders to the delivery organisation, a steer in the right direction, and a means of restoring focus to the big picture...Design Principles should be a point of departure, setting out a common understanding [of] the issues to be addressed."* (Developing Design Principles for National Infrastructure (NIC, 2018)).

The principles for the Proposed Development, which were set out within the Stage One informal Consultation are set out below:

#### **1. Climate:**

- Positively contribute to delivering the UK to net zero by 2050;
- Design for resilience to future climate change;
- Prioritise sustainable techniques and technologies in construction and operation; and
- Minimise carbon throughout the project lifecycle.

#### **2. People:**

- Engage openly and transparently with local communities, stakeholders and neighbours, making use of local knowledge to improve our project;
- Consider feedback carefully and engage and respond meaningfully;

- Behave as a considerate neighbour through both construction and operation; and
- Respect public amenity.

### **3. Value:**

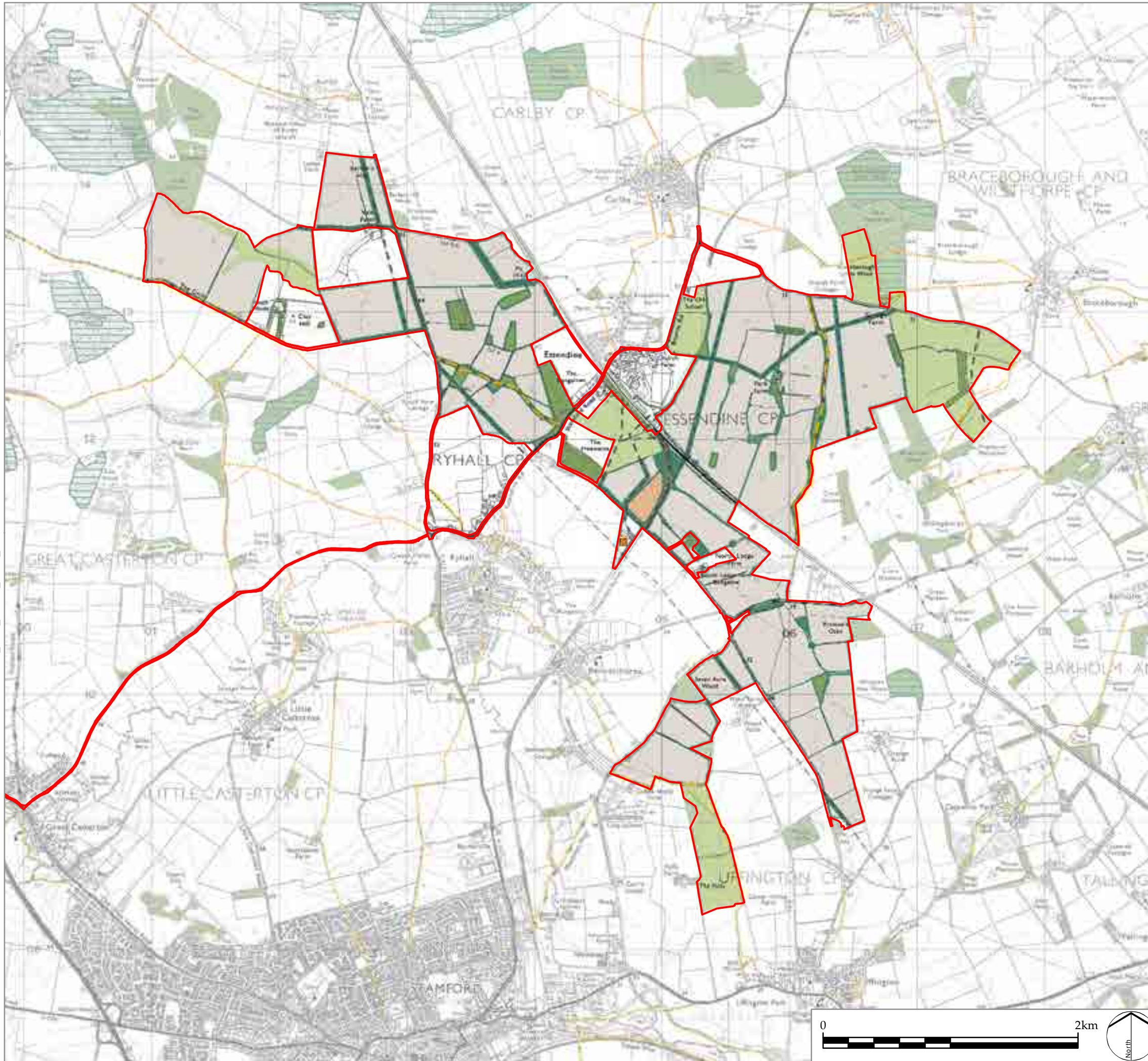
- Recognising the evolving and advancing nature of technology and seek to ensure we retain the ability to use the best and latest available to maximise efficiency;
- Learn from comparable projects using best practice to design and deliver our project;
- Provide wider economic and supply chain benefits, and a positive legacy for the communities in and around Mallard Pass Solar Farm;
- Deliver a successful project, free from Government subsidy, helping contribute affordable energy to the national supply;
- Respect the wider landscape and the intrinsic value of the countryside and natural environment; and
- Respect and respond to features of heritage value.

### **4. Place:**

- Deliver project-wide biodiversity net gain;
- Maximise opportunities to create appropriate multifunctional spaces to achieve energy generation, continued agricultural use, biodiversity enhancements, water and flood management and green spaces;
- Reduce any environmental impact, sensitively designing Mallard Pass Solar Farm to fit into the landscape and explore reasonable opportunities to mitigate potential visual impacts;
- Respect the distinctive and unique character of the countryside; and
- Recognise and respect heritage value, understanding the direct and indirect impact on cultural heritage assets.








3.7.4. These principles will be refined in response to the ongoing EIA and stakeholder engagement and will be secured through the DCO.









**LEGEND**

**Site Features**

-  Site boundary
-  Railway line
-  Existing Utilities (gas, water, sewer and electricity)
-  Existing substation
-  Public Right of Way
-  Ancient Woodland
-  Woodland, hedgerows, trees, field boundaries and ditches

**Concept Masterplan Proposals**

-  Potential solar development
-  Potential Mitigation and Enhancement Areas
-  Potential Substation Area
-  Buffers to woodland, trees, hedgerows, ditches, utilities and Public Rights of Way

**LDĀDESIGN**

PROJECT TITLE  
**MALLARD PASS SOLAR FARM:  
 EIA SCOPING REPORT**

DRAWING TITLE  
**Illustrative Layout**

ISSUED BY	Oxford	T: 01865 887050
DATE	January 2022	DRAWN VW
SCALE @A3	1:30,000	CHECKED RP
STATUS	Final	APPROVED RP

**DWG. NO. Figure 3.1**

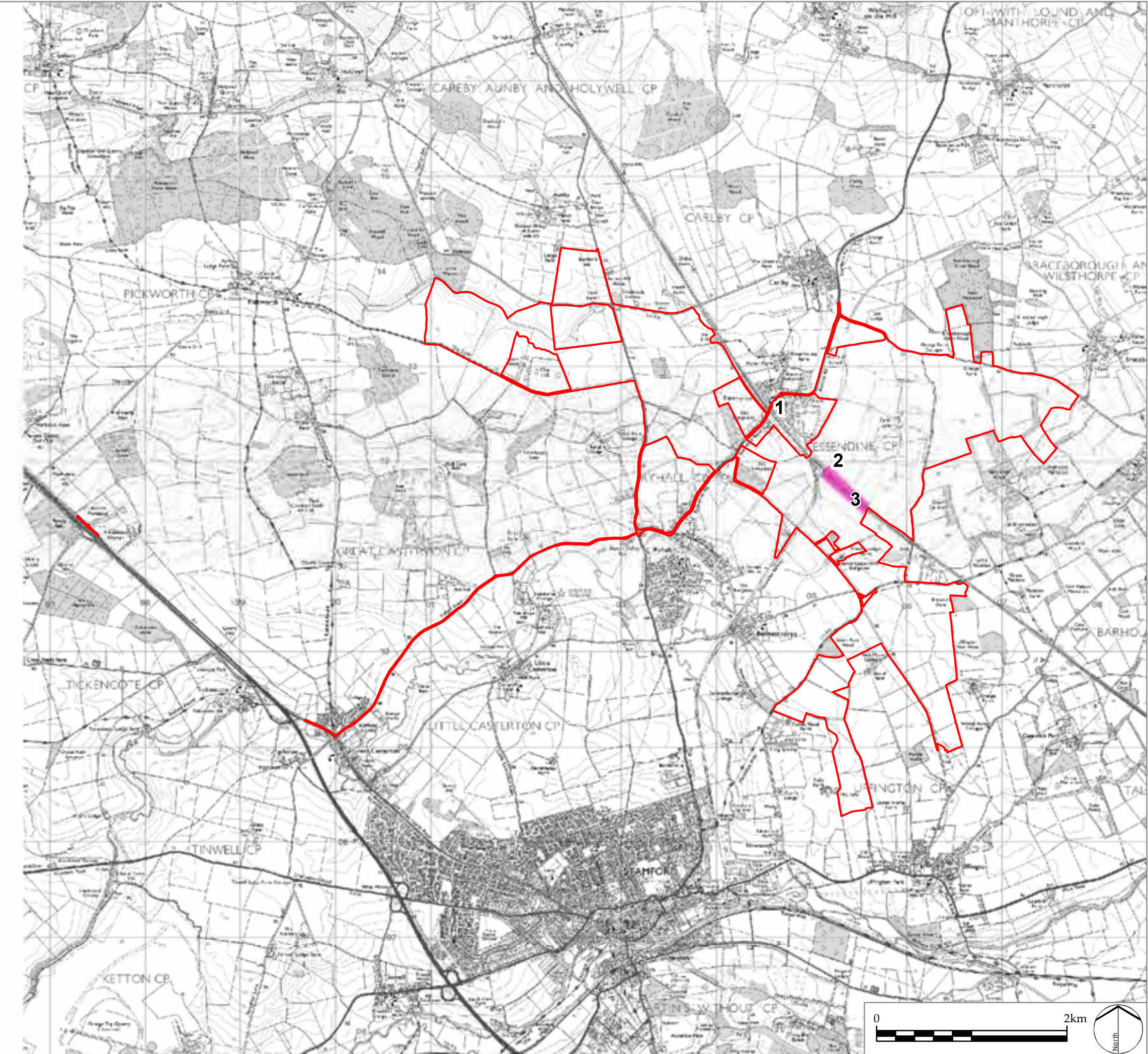
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 All dimensions are to be checked on site.  
 Area measurements for indicative purposes only.

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Sources: Ordnance Survey, Historic England, Natural England, Environment Agency, National Tree Mapping - © Bluesky International Limited







LEGEND

-  Site boundary
-  Potential Zone for Horizontal Directional Drilling (width TBC)

Locations of Potential Railway Cable Crossings:

- 1** Road Bridge through Essendine
- 2** Existing culverts/arches
- 3** Horizontal Directional Drilling

# LDĀ DESIGN

PROJECT TITLE  
MALLARD PASS SOLAR FARM:  
EIA SCOPING REPORT

DRAWING TITLE  
Potential Railway Cable Crossing Options

ISSUED BY	Oxford	T: 01865 887050
DATE	January 2022	DRAWN AG
SCALE @A3	1:40,000	CHECKED DB
STATUS	Final	APPROVED RP

**DWG. NO. Figure 3.2**

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Sources: Ordnance Survey, Esri





## **4.0 Consultation**

- 4.1.1. Sections 42, 47 and 48 of the Planning Act 2008 and Regulation 13 of the EIA Regulations require that certain stakeholder groups and the local community must be consulted as part of the pre-application process. As part of this process a Preliminary Environmental Information Report (PEIR) will be produced and consulted upon.
- 4.1.2. Consultation alongside the EIA process is critical to the development of a comprehensive and proportionate ES. The views of statutory and non-statutory consultees are important to ensure that the EIA from the outset focuses on the environmental studies and to identify specific issues where significant environmental effects are likely, and where further investigation is required. The consultation, as an ongoing process, enables mitigation measures to be incorporated into the Proposed Development to limit adverse environmental effects and optimise environmental benefits.
- 4.1.3. Early and ongoing engagement with consultees will be important to influence the design process of the Proposed Development by seeking an appropriate level of feedback from consultees, to ensure that comments are considered in project design.

## **4.2. Stage One Non-Statutory Consultation**

- 4.2.1. Stage One community consultation commenced on 4<sup>th</sup> November 2021 and ran for six weeks, closing on 16<sup>th</sup> December 2021. The consultation took place in the form of three physical public exhibitions, held at Ryhall, Stamford and Essendine, and two online community webinars. The aim of the non-statutory consultation was to introduce the Proposed Development



to the local communities and invite members of the public to ask questions and provide feedback on the early concept design.

4.2.2. All responses received during consultation are being carefully considered and taken into account in the development of the Proposed Development and a consultation summary report has been released at the same time as this EIA Scoping Request.

### **4.3. Consultation to Date**

4.3.1. A number of meetings with stakeholders have already taken place to provide an introduction of the Proposed Development, obtain baseline environmental data and discuss preliminary baseline survey methodologies including:

- Rutland County Council (RCC);
- South Kesteven District Council (SKDC);
- Lincolnshire County Council (LCC);
- Natural England;
- Heritage Lincolnshire;
- Environment Agency; and
- National Highways.

4.3.2. The consultation undertaken for each of the environmental disciplines is provided in further detail in the respective topic sections in Chapters 7 and 8 of this Scoping Report.

### **4.4. Scoping Consultation**

4.4.1. PINS acting on behalf of the Secretary of State for Business, Energy and Industrial Strategy (BEIS) will consult on this Scoping Report in accordance with Regulation 10(6) of the EIA Regulations. Consultees include statutory consultation bodies, including environmental bodies (such as Natural England, the Environment Agency and Historic England) as well as relevant

planning authorities. Comments received from consultees will be considered and included within the Scoping Opinion issued by PINS.

#### **4.5. Statutory Consultation**

- 4.5.1. A SoCC will be prepared in accordance with Section 47 of the Planning Act 2008. The SoCC will outline how the Applicant intends to consult with the local community on the Proposed Development. The Applicant is required to consult the local authorities identified pursuant to section 43 of the Planning Act 2008 on the draft SoCC and they will have a period of at least 28 days, following receipt of the request, to comment on a draft SoCC prior to its publication for inspection by the public.
- 4.5.2. During the statutory consultation, consultation will also be undertaken with prescribed consultation bodies as well as affected landowners, in accordance with Sections 42 of the Planning Act 2008 and Regulation 13 of the EIA Regulations.
- 4.5.3. The responses received during consultation will be carefully considered and taken into account in the design evolution of the Proposed Development in accordance with Section 49 of the Planning Act 2008. The consultation responses will be recorded in a Consultation Report which will be submitted to support the application for development consent.

## **5.0 Legislative Context and Planning Policy**

### **5.1. Net Zero: Opportunities for the Power Sector**

5.1.1. In June 2019 the Government raised the UK's ambition on tackling climate change by legislating for a net-zero greenhouse gas emissions target for the whole economy by 2050. Decarbonising the power sector is integral to achieving this goal and requires major investment in proven technologies, such as solar, which are supported by planning policy at local and national level.

5.1.2. The National Infrastructure Commission (NIC), official advisor to the Government on infrastructure, has subsequently produced a report, 'Net Zero: Opportunities for the Power Sector', in March 2020, which sets out the infrastructure required in order to meet the 2050 target, including the amount of new renewable energy development that would need to be deployed. Importantly, the NIC recommends the generation mix is up to around 90% renewables. The report recommends that across all scenarios significant solar, onshore wind, and offshore wind, with between 129-237 gigawatts ('GW') of renewable capacity is in operation by 2050, including:

- 56-121 GW of solar;
- 18 -27 GW of onshore wind; and
- 54 – 86 GW of offshore wind.

5.1.3. The National Grid Electricity System Operator (NGESO) report, Future Energy Scenarios, published in July 2021, provides comparable statistics citing a need for 57- 89 GW of solar.

5.1.4. The above requires an increase in installed capacity, including up to nine times more solar than is currently installed in the UK, which is presently around 13.2GW according to the Department for Business, Energy & Industrial Strategy (BEIS).

5.1.5. Although the above figures are high-level, they demonstrate the amount of new infrastructure that is required to meet the urgent need to decarbonise the energy sector in the UK. The scale of this need is such that it must be shared throughout the UK and in recognition that climate change is a national and global issue.

## 5.2. Net Zero Strategy: Build Back Greener

5.2.1. The Net Zero Strategy, published by Government on 19<sup>th</sup> October 2021, builds on Government's commitments made in the Energy White Paper (2020) and sets out the long-term strategy, policy and proposals to keep the UK on track for future carbon budgets and sets the vision for a decarbonised economy by 2050. Key policies in the Strategy related to UK power generation include:

- *“By 2035 the UK will be powered entirely by clean electricity, subject to security of supply; [...]*
- *40 GW of offshore wind by 2030, with more onshore, solar and other renewables – with a new approach to onshore and offshore electricity networks to incorporate new low carbon generation and demand in the most efficient manner that takes account of the needs of local communities [...]*
- *Deployment of new flexibility measures including storage to help smooth out future price spikes.”*

## 5.3. Planning Act 2008

5.3.1. The Proposed Development constitutes NSIP development, in accordance with the Planning Act 2008, as it comprises:

- The construction or extension of a generating station (Part 3, Section 14(1)(a)); and
- Its capacity is more than 50MW (Part 3, Section 15(2)(I)).

5.3.2. Therefore, a DCO application under the Planning Act 2008 is required will be made to PINS as the Examining Authority.

#### 5.4. National Policy Statements

5.4.1. The following NPSs are relevant to the Proposed Development:

- Overarching NPS for Energy (EN-1);
- NPS on Renewable Energy Infrastructure (EN-3); and
- NPS for Electricity Networks Infrastructure (EN-5).

##### ***Overarching National Policy Statement for Energy (EN-1)***

5.4.2. The Overarching NPS for Energy (EN-1), adopted by the Department of Energy and Climate Change (DECC) in July 2011, sets out the national policy for delivering major energy infrastructure in England and Wales. The NPS has effect in combination with the relevant technology specific NPS, National Policy for Renewable Energy Infrastructure (EN-3), and together they provide the primary basis for decisions made by the Examining Authority.

5.4.3. Part 3 of EN-1 identifies the need that exists for nationally significant energy infrastructure. With regards to decision making, paragraph 3.1.1. of EN-1 states how *“the UK needs all the types of energy infrastructure covered in this NPS in order to achieve energy security at the same time as dramatically reducing greenhouse gas emissions”*.

Paragraph 3.1.2 states: *“It is for industry to propose new energy infrastructure projects within the strategic framework set by Government. The Government does not consider it appropriate for planning policy to set targets for or limits on different technologies”*.

5.4.4. Paragraph 3.3.11 notes that renewable energy sources, such as solar, are intermittent and, as a result, back-up sources are required at times when the availability of intermittent renewable sources is low. Paragraph 3.3.12 goes on to identify how electrical storage technologies can be used to compensate for intermittence.

- 5.4.5. Paragraph 4.1.3 of the NPS EN-1 states that in considering any proposed development, and in particular when weighing its adverse impacts against its benefits, the Examining Authority should take into account:
- Its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long-term or wider benefits; and
  - Its potential adverse impacts, including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts.
- 5.4.6. Section 4.2 of the NPS EN-1 is related to the requirement for assessment of likely significant environmental effects and reporting within an Environmental Statement for projects that are subject to the European Environmental Impact Assessment Directive (85/337/EEC).
- 5.4.7. Paragraph 4.2.2 of the NPS states that:
- “To consider the potential effects, including benefits, of a proposal for a project, the IPC [now PINS] will find it helpful if the applicant sets out information on the likely significant social and economic effects of the development, and shows how any likely significant negative effects would be avoided or mitigated. This information could include matters such as employment, equality, community cohesion and well-being.”*
- 5.4.8. Paragraph 4.3.2 continues:
- “For the purposes of this NPS and the technology-specific NPSs the ES should cover the environmental, social and economic effects arising from pre-construction, construction, operation and decommissioning of the project.”*
- 5.4.9. Paragraph 4.2.4 states that when considering a proposal, the Examining Authority should:
- “Satisfy itself that likely significant effects including any significant residual effects taking account of any proposed mitigation measures or any adverse*

*effects of those measures, have been adequately assessed. In doing so the IPC should also examine whether the assessment distinguishes between the project stages and identifies any mitigation measures at those stages. The IPC [now PINS] should request further information where necessary to ensure compliance with the EIA Directive.”*

- 5.4.10. Where relevant, the EIA process will take into account the requirements of the NPS.

***National Policy Statement on Renewable Energy Infrastructure (EN-3)***

- 5.4.11. The NPS on Renewable Energy Infrastructure (EN-3), published by the DECC in July 2011, taken together with the Overarching NPS for Energy (EN-1), provides the primary basis for decisions by the Examining Authority on applications it receives for nationally significant renewable energy infrastructure.
- 5.4.12. The importance of generation of electricity from renewable sources is stated at Paragraph 1.1.1 of NPS EN-3:
- “Electricity generation from renewable sources of energy is an important element in the Government’s transition to a low-carbon economy. There are ambitious renewable energy targets in place and a significant increase in generation from large-scale renewable energy infrastructure is necessary”.*
- 5.4.13. At the time of publication of NPS EN-3, utility scale solar development was not feasible. Therefore, whilst providing an assessment and technology-specific information on certain renewable energy technologies, NPS EN-3 does not include solar PV development, and only covers projects for biomass/waste and offshore and onshore wind.

### ***National Policy Statement for Electricity Networks Infrastructure (EN-5)***

- 5.4.14. The NPS for Electricity Networks Infrastructure (EN-5) was published by the DECC in July 2011 and forms part of the suite of energy NPSs and is to be read in conjunction with the Overarching NPS for Energy (EN-1).
- 5.4.15. NPS EN-5 is relevant to the Proposed Development as the policy recognises electricity networks as “transmission systems (the long distance transfer of electricity through 400kV and 275kV lines), and distribution systems (lower voltage lines from 132kV to 230V from transmission substations to the end-user) which can either be carried on towers/poles or undergrounded” and “*associated infrastructure, e.g. substations (the essential link between generation, transmission, and the distribution systems that also allows circuits to be switched or voltage transformed to a useable level for the consumer) and converter stations to convert DC power to AC power and vice versa.*”
- 5.4.16. NPS EN-5 sets out further technology-specific considerations, in addition to those impacts covered in NPS EN-1, for: Biodiversity and Geological Conservation; Landscape and Visual; and Noise and Vibration. Furthermore, NPS EN-5 sets out technology-specific considerations for the impact of electromagnetic frequencies (EMFs).

## **5.5. Draft National Policy Statements**

### ***Draft Overarching National Policy Statement for Energy (EN-1), 2021***

- 5.5.1. In contrast to the adopted NPS EN-1 (2011), the Draft NPS EN-1, published in September 2021, makes specific reference to the generation of solar



energy and recognises that there is an urgent need for new electricity generating capacity to meet UK objectives.

5.5.2. Paragraph 3.2.1 of the Draft NPS EN-1 states that: *“wind and solar are the lowest cost ways of generating electricity, helping reduce costs and providing a clean and secure source of electricity supply (as they are not reliant on fuel for generation). Our analysis shows that a secure, reliable, affordable, net zero consistent system in 2050 is likely to be composed predominantly of wind and solar.”* The NPS highlights that Government requires a sustained growth in the capacity of solar in the next decade and recognises that solar development needs to be coupled with technologies which optimise energy generation even when conditions for solar generation are not optimal.

5.5.3. Paragraph 3.3.24 of the Draft NPS EN-1 recognises that that energy storage is key in achieving net zero and providing flexibility to the energy system, so that high volumes of low carbon power can be integrated and to reduce the costs of the electricity system and increase reliability by storing surplus electricity in times of low demand to provide electricity when demand is higher.

***Draft National Policy Statement for Renewable Energy Infrastructure (EN-3), 2021***

5.5.4. The Draft NPS EN-3, published in September 2021, introduces a new section (Section 2.47) on solar photovoltaic generation, recognising that solar farms are ones of the most established renewable electricity technologies in the UK and the cheapest form of electricity generation worldwide. Paragraph 2.47.1 states that the government has committed to sustained growth in solar capacity to ensure that the UK is on the pathway

to meet net zero emissions by 2050, and as such, solar is a key part of Government's strategy for low-cost decarbonisation of the energy sector.

5.5.5. Section 2.48 of the Draft NPS EN-3 sets out key influences that developers should consider when selecting sites for solar development, including the following factors:

- Irradiance and site topography;
- Proximity of a site to dwellings;
- Capacity of a site;
- Grid connection;
- Agricultural Land Classification and land type; and
- Accessibility.

5.5.6. Sections 2.50 – 2.54 of the Draft NPS EN-3 provides topic-specific requirements of how applicants should consider impacts within technical assessments, development of proposed mitigation measures and decision-making for solar development, for the following topics:

- Biodiversity and nature conservation;
- Landscape, visual and residential amenity;
- Glint and glare;
- Cultural heritage; and
- Construction including traffic and transport noise and vibration.

***Draft National Policy Statement for Electricity Networks Infrastructure (EN-5), 2021***

5.5.7. The Draft NPS EN-5 was published in 2021 and recognises that new electricity networks required for electricity generation, storage and interconnection infrastructure are vital to achieving the nation's transition to net zero.

5.5.8. Draft NPS EN-5 includes a new section on 'Environmental and Biodiversity Net Gain' at Section 2.8, which states that when planning and evaluating a

projects contribution to environmental and biodiversity net gain, it will be important, for both the Applicant and examining Authority, to recognise that *“the linear nature of electricity networks infrastructure allows excellent opportunities to: i) reconnect important habitats via green corridors, biodiversity stepping zones, and re-establishment of appropriate hedgerows; and/or ii) connect people to the environment, for instance via footpaths and cycleways constructed in tandem with biodiversity enhancements.”*

## **5.6. National Planning Policy Framework**

- 5.6.1. While not determinative under the Planning Act 2008, it is a document that may be important and relevant for the purposes of the Secretary of State’s decision making. The NPPF also provides relevant context for individual assessment topics.
- 5.6.2. The NPPF was published by Ministry of housing, Communities and Local Government (formerly the Department for Communities and Local Government) in March 2012 and was updated in July 2021. The NPPF sets out Government’s planning policies and how these should be applied for England.
- 5.6.3. The NPPF does not contain specific policies for NSIPs; however, Chapter 2 of the NPPF ‘Achieving sustainable development’ sets out that the planning system should contribute to the achievement of sustainable development, considering economic, social and environmental roles.
- 5.6.4. Paragraph 152 of the NPPF states:
- “The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience;*

*encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.”*

5.6.5. Paragraph 158 continues to state that, whilst the local planning authority is not the determining authority for the application for development consent,, when determining planning applications for renewable and low carbon development, local planning authorities should:

*“a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and*

*b) approve the application if its impacts are (or can be made) acceptable  
...”*

## **5.7. Local Planning Policy**

5.7.1. The Local Development Plans do not carry the same weight under the Planning Act 2008 in respect of decision making on NSIP, as they do with determining planning applications under the Town Country Planning Act 1990. The NPSs are the primary consideration for NSIP applications. Nevertheless, the Development Plan is still a matter which can be considered important for the consideration of an NSIP although in the event of any conflict, the NPS prevails.

5.7.2. The relevant Local Planning Policies of the adopted development plans for each of the ‘host’ planning authorities will be considered as part of the assessment.

***Rutland County Council Adopted Core Strategy Development Plan Document (DPD), 2011***

- 5.7.3. The Rutland County Council (RCC) Core Strategy DPD was adopted on 11<sup>th</sup> July 2011 and sets out the vision, objectives, spatial strategy and policies for development in Rutland up to 2026.
- 5.7.4. Policy CS20 'Energy efficiency and low carbon energy generation' of the RCC Core Strategy DPD states that "*renewable, low carbon and decentralised energy will be encouraged in all development*". The policy continues to state that low carbon energy generating development will be supported where environmental, economic and social impacts can be addressed satisfactorily and where they address issues related to: landscape and visual impact; cumulative impact; impacts to the natural and cultural environment; and contribute to national and international environmental objectives on climate change and national renewable energy targets.

***Regulation 19 Rutland County Council Local Plan 2018 – 2036***

- 5.7.5. The Regulation 19 consultation period on the RCC Local Plan (2018 – 2036) ran from 27<sup>th</sup> August to 6<sup>th</sup> November 2020. Following a Special Full Council meeting, the Local Plan (2018 -2036) was withdrawn on 1<sup>st</sup> September 2021. RCC will progress the new Local Plan through the various stages (evidence gathering, preferred options, Regulation 19 preparation of proposed Submission plan, Regulation 22 preparation for submission to Secretary of State, Regulation 24 Independent Examination and Adoption, and it is anticipated that the new Local plan will be adopted in 2025.

### ***South Kesteven District Council Local Plan 2011- 2036***

- 5.7.6. The South Kesteven District Council (SKDC) Local Plan was adopted on 30<sup>th</sup> January 2020 and sets the ambitions for the district for the period up to 2036.
- 5.7.7. Policy RE1 'Renewable Energy Generation' of the SKDC Local Plan states that proposals for renewable energy generation will be supported subject to meeting the criteria outlined in Appendix 3 'Renewable Energy' of the Local Plan and provided that:
- The proposal does not negatively impact the district's agricultural asset;
  - The proposal can demonstrate the support of affected local communities;
  - The proposal includes details of the transmission of power produces;
  - The proposal details that all apparatus related to renewable energy production will be removed from the site when power production ceases;
  - That the proposal complies with any other relevant Local Plan policies and national planning policy.
- 5.7.8. Part 3 of Appendix 3 of the Local Plan relates to solar technologies, including solar photovoltaic PV, and specifies criteria, for which developers are required to provide evidence-based assessments, to be used for development management purposes in the determination of planning applications. The possible harmful impacts of a ground-mounted solar farm will be assessed according to the following criteria:
- Visual impact on landscape or heritage settings;
  - Visual impact upon dwellings or communities;
  - Cumulative impact;
  - Noise;
  - Highways and safety;
  - Glint and Glare;
  - Nature conservation; and
  - Impact on agricultural land.

## **6.0 Environmental Impact Assessment Methodology**

### **6.1. The EIA Process**

6.1.1. EIA is the process of compiling, evaluating and presenting all the significant environmental effects of a proposed development, prior to major decisions being made. It is born out of Directive 85/337/EC (as amended) on the assessment of the effects of certain public and private projects on the environment. Following a series of amendments, a new Directive, EIA Directive 2014/52/EU came into force on 15<sup>th</sup> May 2014. This Directive was transposed into English law, for the purposes of the Proposed Development, on 16<sup>th</sup> May 2017 through the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended).

6.1.2. To ensure that the EIA Regulations continue to operate following the UK's withdrawal from the European Union, the EIA Regulations were amended under the Environmental Assessments and Miscellaneous Planning (Amendment) (EU Exit) Regulations 2018 (SI 2018/1232) to replace references to EU Directives and legislation and to uphold international obligations through domestic legislation.

6.1.3. In general terms the main stages in the EIA are as follows:

- Baseline Conditions – collation and review of available data and undertake baseline surveys;
- Scoping – identification of likely significant issues to determine the scope of the EIA;
- Consultation - seek feedback from consultees and the public in relation to key environmental issues, methodology adopted and design approaches;
- Assessment Methodology– define methodologies using topic specific guidance and best practice techniques and assess the likely significant effects of the Proposed Development, identify and evaluate alternatives,

provide feedback to the project design team, incorporate any necessary mitigation measures and assess residual effects; and

- Preparation of the Environmental Statement and non-technical summary.

6.1.4. The assessment process is designed to produce an environmentally sensitive development by considering and assessing the effects of the Proposed Development against existing environmental baseline conditions. To date, the EIA team has undertaken a review of both the environmental sensitivities within and surrounding the Site and the preliminary concept design to identify any potential environmental effects. Where the baseline environment has been informed by Site visits and environmental surveys, these have been detailed in Chapters 7 and 8 of this report.

6.1.5. The EIA process will be undertaken in accordance with the EIA Regulations, guidance produced by PINS and the Institute of Environmental Management and Assessment (IEMA) and other environmental topic-specific guidance. The ES will set out details on the methodology and approach, along with the overall conclusions of the EIA process. It will also outline the main parameters and detailed design aspects of the Proposed Development against which the assessment will be undertaken.

6.1.6. Development parameters will be determined and fixed for the purposes of the EIA through an iterative approach taking into account baseline environmental information, the evolving design and any associated technical requirements.

6.1.7. The EIA will assess the construction, operational and decommissioning phases of the Proposed Development.

## **6.2. Baseline Conditions**

6.2.1. An important step in the EIA process is to establish a baseline against which to assess the effects of the Proposed Development. Information



relating to the existing environmental baseline will be collected through field and desktop study, including:

- Online/digital resources;
- Data searches, e.g. Local Biological Record Centres, Historic Environment Record, etc.;
- Baseline Site surveys; and
- Available environmental information submitted in support of other planning applications for development in the vicinity.

6.2.2. For each environmental topic chapters, the methods of baseline data collection will be discussed with the relevant consultees.

### **6.3. EIA Scoping**

- 6.3.1. Whilst every ES should provide a full factual description of the development, the emphasis of Schedule 4 (of the EIA Regulations) is on the **"significant"** environmental effects to which a development is likely to give rise. Regulation 10(3) of the EIA Regulations require an EIA Scoping Request to include an explanation of the likely significant effects of the development on the environment. It isn't the role of the EIA and ES to assess all potential effects of proposed development, which is further evidenced by Regulation 14(2)(b), which requires the ES to include a description of the likely significant effects of proposed development on the environment.
- 6.3.2. Schedule 4 of the EIA Regulations is provided at Appendix 6.1 of this report.
- 6.3.3. Where relevant, the environmental topics set out within this Scoping Report provide an outline of the proposed approach to assessment and the potential environmental effects. The ES will provide an objective analysis of the significant environmental effects and highlight the key issues relevant to the decision-making process.

6.3.4. In accordance with the EIA Regulations, a cumulative assessment will also be undertaken. The approach to this assessment is outlined in more detail in Chapter 9 of this report.

6.3.5. Upon receipt of the EIA Scoping Opinion, the points raised within the Scoping Opinion will be presented within a tabulated format. This table will be included within the ES and be used to sign-post stakeholders to the relevant section of the ES so to demonstrate how the points raised have been considered and addressed.

#### **6.4. Consultation**

6.4.1. Consultation with stakeholders will be undertaken throughout the EIA process to gather feedback on the emerging project proposals, baseline survey methodologies and results and assessment methodology. Consultation with statutory consultees and stakeholders has already commenced to help inform the content of this EIA Scoping Report. Further detail on stakeholders who have already been consulted can be found within the individual environmental chapters of this document.

#### **6.5. EIA Methodology**

##### ***EIA Assessment Scenarios***

6.5.1. The EIA will assess the effects of the following scenarios:

- Construction Phase (2026 – 2028);
- Operational Phase (permanent); and
- Decommissioning Phase (2068 - 2070).

6.5.2. The ES will include within each of the environmental topics a description of the current baseline and the future baseline.

6.5.3. The ‘future baseline’ scenario will describe the changes from the baseline scenario as far as natural changes can be established, although it is noted

without the Proposed Development that the solar PV Site would continue to be intensively managed for agricultural purposes.

6.5.4. The potential effects arising as a result of the Proposed Development will be assessed against these three baselines as follows:

- Construction Phase – Current and Future Baseline; and
- Operational Phase – Future Baseline.
- Decommissioning Phase – Future Baseline.

#### ***Prediction of Likely Effects***

6.5.5. When undertaking an EIA, environmental effects are classified as either permanent or temporary, as appropriate to the effect in question. Permanent effects are those which are irreversible (e.g. permanent land take) or will last for the foreseeable future (e.g. noise from generated road traffic). The duration of temporary effects are listed as follows:

- 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).

6.5.6. Further details can be found within the methodology section of each of the environmental topic chapters.

6.5.7. In assessing the significance of potential effects identified through the EIA process, account will be taken as to whether effects are direct or indirect, secondary, cumulative, transboundary, short, medium or long term, permanent or temporary and positive or negative.

#### ***Determining Significance***

6.5.8. The EIA will identify the 'significance' of environmental effects (beneficial or adverse) arising from three phases (construction, operation and

decommissioning) of the Proposed Development. The significance of residual effects will be determined by reference to the criteria set out for each environmental topic. The approach to assessing and assigning significance to an environmental effect is derived from a variety of sources including, in particular, the National Planning Policy Framework (NPPF) and relevant planning practice guidance, legislative requirements, topic specific guidelines, standards and codes of practice, the EIA Regulations, advice from statutory consultees and other stakeholders and the expert judgement of the team undertaking the EIA.

- 6.5.9. The likely effect that the Proposed Development may have on identified environmental receptors will be influenced by a combination of the sensitivity (or importance) of the receptor and the predicted magnitude of impact from the baseline conditions.
- 6.5.10. Assignment of environmental sensitivity of a receptor will generally depend on the vulnerability, recoverability and value/importance of the receptor. The environmental sensitivity (or importance) will be determined using the following categories:
- **High** – high importance and rarity, international level and very limited potential for substitution.
  - **Medium** – high or medium importance and rarity, regional level and limited potential for substitution;
  - **Low** – low or medium importance and rarity; and local level.
  - **Negligible** – very low importance or rarity and local level.
- 6.5.11. Where other categories of sensitivity have been used, this will be set out in the individual environmental topic assessment.
- 6.5.12. The categorisation of the magnitude of impact will take into account the following factors:
- Extent;

- Duration;
- Frequency; and
- Reversibility.

6.5.13. Impacts will be defined as either beneficial or adverse. As a guide magnitude of impact will generally be assigned using the categories below. Further details of the topic-specific methodologies adopted for the EIA, will be defined within the methodology section of each of the topic chapter:

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

6.5.14. The overall significance of the effect will be assigned by the interaction of both sensitivity of the receptor and magnitude of impact. The level of significance will be determined in each of the environmental topic assessments and will consider relevant topic-specific legislation, planning policy and guidance. Levels of significance of effects will generally follow the following scale and will be either beneficial or adverse:

- Major – effects are considered to be very important and are likely to be material in the decision-making process;
- Moderate – effects may be important, but are not likely to be important in the decision-making process;
- Minor – effects to local factors and are unlikely to be important in the decision-making process; and

6.5.15. Negligible or No effect - No effect or those that are beneath the level of perception.

6.5.16. The typical matrix used to determine the significance of effect is shown in Table 6.1.

**Table 6.1: Typical Significance of Effect Matrix**

Receptor Sensitivity	Magnitude of Impact			
	High	Medium	Low	Negligible
High	Major	Moderate	Minor	Negligible
Medium	Moderate	Minor	Minor	Negligible
Low	Minor	Minor	Negligible	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible

6.5.17. Professional judgement will be used to assign the most appropriate option where the matrix offers more than one level of significance. The topic

assessments will adopt this general approach to assigning significance, unless stated in the individual topic chapters.

### ***Cumulative and Inter-related Effects***

6.5.18. The cumulative effects assessment will consider two types of relationships:

- Intra-relationship: combined effect of an individual development effects—for example, noise, dust and visual on one particular receptor.
- Inter-relationship: several developments with insignificant impacts individually but which together represent a significant cumulative effect.

6.5.19. Cumulative effects with other schemes will be assessed as part of the EIA process. This will include consideration of whether the Proposed Development, when considered with other schemes, may result in any greater effects on a receptor than the effects of the Proposed Development alone.

6.5.20. Inter-relationships, between topic areas will also be considered as part of the EIA process so as to ensure that effects in a receptor arising from more than one environmental topic area are considered.

6.5.21. Further details of the assessment of cumulative and inter-related effects are provided at Chapter 9 of this report.

### ***Transboundary Effects***

6.5.22. Regulation 32 of the Infrastructure Planning (EIA) Regulations, 2017 require the consideration of any likely significant effects in the environment of another European Economic Area (EEA) member state. Guidance of the consideration of transboundary effects is provided in the PINS' Advice Note 12 'Transboundary Impacts and Process', published in December 2020.



6.5.23. Annex 1 of Advice Note Twelve sets out the transboundary screening proforma for potential effects on the environment on another EEA member state and includes the following criteria and relevant considerations:

- Characteristics of the development;
- Location of development (including existing use) and geographical area;
- Environmental Importance;
- Potential impacts and carrier;
- Extent;
- Magnitude;
- Probability;
- Duration;
- Frequency;
- Reversibility; and
- Cumulative impacts.

6.5.24. The approach to assessment of transboundary effects is set out in Appendix 6.2.

### ***Mitigation***

6.5.25. Regulation 14(2) of the EIA Regulations requires that where significant effects are identified '*a description of any features of the proposed development, or measure envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects in the environment*' should be included in the ES.

6.5.26. Environmental effects remaining after mitigation measures have been incorporated are termed residual effects and these will be fully described in the ES.

6.5.27. Mitigation measures are developed as part of an iterative process and therefore will be developed throughout the EIA process in response to the findings of the initial assessments.

- 6.5.28. In 2017, IEMA published a paper titled ‘Delivering Proportionate EIA’. The purpose of this paper was to introduce a strategy for enhancing EIA practice that delivers valuable and accessible information that positively influences development design and consenting to the benefit of developers, communities and the environment. One of the four strategic themes for action is improving the scoping process that generates a more consistently focussed approach. The EIA scoping process should enable the Applicant and determining authority, to focus on the significant environmental topics associated with the Proposed Development.
- 6.5.29. To help achieve a proportionate EIA process and ES, IEMA’s Shaping Quality Development Guidance (2015) has set out a clear mitigation strategy, which helps to focus on those effects that are likely to be significant. Set out below is the approach to classifying mitigation, which can take many forms:
- **Primary Mitigation** – this type of mitigation can best be described as modifications to the location or design of the development made during the pre-application/design phase that are an inherent part of the project and do not require additional action to be taken. Examples include identifying a key habitat that should remain unaffected by the development’s layout and operation e.g. retaining a hedgerow in situ. This type of mitigation will be identified through an iterative EIA and design process prior to fixing the design for assessment purposes and preparation of the ES;
  - **Secondary Mitigation** – this type of mitigation can best be described as actions that will require further activities in order to achieve the anticipated outcome. An example includes describing certain lighting limits which will be subject to the submission of a detailed lighting layout as a condition of approval or a flood evacuation warning plan;

- **Tertiary Mitigation** – this type of mitigation can best be described as actions that would occur with or without input from the EIA feeding into the design, construction or operational 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. An example might include Considerate Contractor’s practices that manage activities that have potential nuisance effects or the requirement for a Construction Environmental Management Plan (CEMP) to be submitted to the local planning authority prior to works starting onsite.

6.5.30. Our approach to EIA is not to undertake an assessment of environmental effects where primary or tertiary mitigation measures are sufficient to avoid a likely significant effect occurring. This approach allows the ES to be focussed solely on the likely significant environmental effects and not theoretical significant effects that will not materialise as a result of the design or standard construction practices.

6.5.31. Within this Scoping Request, each of the environmental topics have clearly set out where primary and tertiary mitigation would be sufficient to avoid significant effects occurring.

6.5.32. A summary of all mitigation measures and how they will be secured, either inherently through the project design, or through control documents, or requirements within the DCO, will be set out in the ES.

### ***Monitoring***

6.5.33. The EIA Regulations require “*the monitoring of any significant adverse effects on the environment of the proposed development*”. The ES will specify which effects, if any, will require monitoring (secondary mitigation).

### **Consideration of Alternatives**

6.5.34. It is necessary to consider reasonable alternatives for the Proposed Development, and to set these out clearly in the ES, in accordance with Schedule 4 of the EIA Regulations:

*"A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects."*

6.5.35. Regulation 14(2)(d) of the EIA Regulations also requires that the ES should include:

*"A description of the reasonable alternatives studied by the applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment..."*

6.5.36. The consideration of alternatives will likely involve the analysis of different layouts, scales, technologies adopted, design parameters and Site selection. The ES will include a description of the alternatives relevant to the Proposed Development that have been considered, as well as the justification for selecting the chosen option. The consideration of alternatives will be presented within a standalone chapter within the ES.

## **6.6. Environmental Statement**

6.6.1. In accordance with Schedule 4 (Regulation 18(3)) of the EIA Regulations, the EIA process will be documented in an ES which will describe the Proposed Development, give full details of the EIA methodology and any technical methodologies and data used in support of the assessment; detail

any mitigation and enhancement measures that have been employed; present the assessment of likely significant environmental effects and provide a schedule of proposed mitigation and monitoring arrangements. The ES will present the residual effects, and an assessment of the cumulative effects and impact interactions as described in each of the topic sections in Chapter 7 below.

6.6.2. Subject to responses from statutory consultees on this Scoping Request, the ES will consist of the following Volumes:

***Volume I: Main ES Text and Supporting Drawings***

6.6.3. This Volume will comprise the main ES text and supporting drawings and will include the following:

- A description of the methodology and approach to EIA;
- A detailed description of the Proposed Development, including details on of the construction and operational phases;
- A description of the evolution of the design process, including a review of the main layout options and reasonable alternatives along with an indication of the main reasons for selecting the chosen option.
- A detailed assessment methodology for each environmental topic scoped into the EIA;
- A description of the current baseline environment and an outline of the likely evolution thereof without implementation of the development for each environmental topic;
- An assessment of predicted environmental effects during the construction, operational and decommissioning phases;
- A description of the mitigation measures proposed;
- A description of any residual environmental effects;

- A description of the expected significant effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters;
- The impact of the project on climate and the vulnerability of the project to climate change; and
- An assessment of cumulative effects.

### ***Volume II: Technical Appendices***

- 6.6.4. Volume II will include all technical data required to support the assessment conclusions set out in Volume I.

### ***Volume III: Non-Technical Summary***

- 6.6.5. A Non-Technical Summary (NTS) will be prepared which will provide a brief description of the Proposed Development, a broad summary using non-technical language of the significant effects likely to arise and mitigation measures identified to reduce those effects.

### ***Content of the ES***

- 6.6.6. The proposed content of Volume I of the ES is outlined as follows:

- Chapter 1: Introduction;
- Chapter 2: Description of Site and Context;
- Chapter 3: Site Selection and Alternatives;
- Chapter 4: Description of Proposed Development;
- Chapter 5: Consultation;
- Chapter 6: Legislative and Planning Policy;
- Chapter 7: EIA Methodology including details of assumptions and/or limitations;
- Chapter 8 – 15: Environmental Topic Assessment;
- Chapter 16: Cumulative Assessment; and

- Chapter 17: Summary of Residual Effects and Mitigation Measures including details of how mitigation will be secured.

6.6.7. Each of the technical assessments will be set out in the following format:

- Introduction;
- List of relevant legislation and planning policies;
- Assessment methodology, including a summary of consultation undertaken, explanation of how responds to EIA Scoping Opinion, list of sources of information & guidance documents, details of the study area, assessment process/criteria and any assumption limitations;
- Baseline Description of the Site (current state of the environment (baseline) and an outline of the likely evolution thereof without the implementation of the Proposed Development (future baseline);
- Assessment of potential effects (including the impact of climate change and major accidents/disasters where relevant);
- Proposed enhancement, mitigation and monitoring measures;
- Residual effects;
- Summary; and
- List of references.

## **7.0 Proposed Environmental Impact Assessment Scope**

### **7.1. Introduction**

7.1.1. Regulation 5 of the EIA Regulations sets out the requirements and scope of the EIA Process. This chapter of the EIA Scoping Request sets out how the EIA process and ES will consider those factors listed within Regulation 5.

### **7.2. Environmental Topics**

7.2.1. Following a review of environmental surveys and preliminary appraisal work to date, it is proposed that the EIA need only to focus on the following environmental topics where significant effects are likely to occur:

- 1) Landscape and Visual;
- 2) Ecology and Biodiversity;
- 3) Access and Highways;
- 4) Noise and Vibration;
- 5) Water Resources and Ground Conditions
- 6) Land Use;
- 7) Glint and Glare; and
- 8) Climate Change Impact Assessment.

7.2.2. Environmental topics which are proposed to be scoped out of the EIA process and ES are described at Section 8.0 of this report.

7.2.3. These topics are referred to in greater detail in this chapter, under the following headings:

- 1) Baseline Conditions;
- 2) Approach to Assessment;
- 3) Potential Effects;
- 4) Issues Proposed to be Scoped Out; and
- 5) Consultation.



### **7.3. Landscape and Visual**

#### ***Introduction***

- 7.3.1. This section of the Scoping Report sets out the approach to the Landscape and Visual Impact Assessment (LVIA) and sets out the proposed location of viewpoints, extent of the study area and key reference documents that would inform the assessment of potential landscape and visual effects. Potential significant effects on landscape and visual receptors may occur during the construction, operational and decommissioning phases of the Proposed Development. Any likely significant effects will sought to be avoided or reduced through design including layout optioneering, setting back the development footprint from sensitive receptors, and/or implementation of screening planting to limit effects on sensitive receptors.

#### ***Baseline Conditions***

- 7.3.2. A desktop assessment of potential landscape and visual receptors has been undertaken, supported by a Site visit (undertaken in October 2021) to understand the baseline conditions of the Site, its landscape character and visual context. A number of viewpoints have been identified from within and around the Site from publicly accessible locations to understand the nature of existing views towards and within the Site to inform the assessment. Further survey work, including formal winter photography from identified, agreed, viewpoint locations (including representative and illustrative views) will be undertaken as part of the assessment of visual impacts of the Proposed Development. A selection of representative viewpoints will also be taken forward for use as photomontages, to demonstrate anticipated views resulting from the Proposed Development. These would be undertaken for year 1 when the Proposed Development would be built but before proposed mitigation planting has matured, and at year 15, following establishment of proposed mitigation planting.

- 7.3.3. The solar PV Site occupies an agricultural landscape, of gently undulating terrain (see Figure 2.3) interspersed with scattered woodland and connecting tree belts / hedgerows. The land use is generally arable farmland, of a large-scale contained by a network of clipped hedgerows. The existing East Coast Main Line railway line, with its overhead gantries, is a distinctive feature visible in many of the wider views, and industrial elements including large buildings south of Essendine, and electricity pylons also contribute to more urbanising elements centrally and along a north-south axis through the Site. The railway line (and river corridor) forms a distinctive linear feature north to south through the centre of the Site. Field parcels to the west of the railway line tend to be more enclosed (opening up towards the north) whilst east of the railway line, longer views are available from more elevated areas within the Site, with fewer woodland stands and boundary vegetation. However, the gently undulating terrain combined with woodland stands, vegetated field boundaries and roadsides act to provide a wooded backdrop to many views and, therefore, screening the Site from further afield, limiting distant views from outside of the Site.
- 7.3.4. The Site does not lie within any national landscape designations, the nearest of which, the Norfolk Coast Area of Outstanding Natural Beauty (AONB) is located over 50km east of the Site. Two local designations identified in the old 2001 Rutland Local Plan policy are located approximately 1km west of the Site, including an 'Area of Particularly Attractive Countryside' (approximately 1.3km northwest towards The Grange), and an 'Area of Local Landscape Value' (approximately 850m west of the solar PV Site, close to Ryhall) but these designations are not included or referred to in adopted planning policy. Four Registered Park and Gardens (RPGs) are located within 3km of the Site including:
- Grade II Greatford Hall, located approximately 600m east of the Site,

- the Grade II Uffington Park, which is located approximately 650m south of the solar PV Site;
- Grade II\* listed Burley House RPG, located approximately 1.5km south of the solar PV Site; and
- Grade II listed Holywell Hall Park RPG, located approximately 2.5km north-west of the solar PV Site.

7.3.5. At a national scale, the Site lies within The Kesteven Uplands National Character Area (NCA 75) (Natural England, 2014); This provides context to the wider character of the landscape.

7.3.6. At a finer, local, landscape scale the Site extends over two landscape character areas including the Rutland Plateaux D(ii) Clay Woodlands (as identified within the Landscape Character Assessment of Rutland (2003)); and the Kesteven Uplands (identified within the South Kesteven Landscape Character Assessment (2007)). The majority of the central and north-western parcels of land within the Site is located within the eastern perturbation of the Rutland Plateaux D(ii) Clay Woodlands, whilst the southern extent of the Site (beyond the Belmesthorpe to Greatford local road), the eastern extent of the Site (south-east of Grange Farm) and a field parcel at the north-western extent of the Site (Barbers Hill) lie within the Kesteven Uplands. Further landscape character areas present within 2km of the Site identified from the local landscape character assessments and addressed within the LVIA include:

- Rutland Plateau - Gwash Valley (Diii) LCA (Landscape Character Assessment of Rutland 2003; approximately 600m south-west of the solar PV Site)
- Welland Valley LCA (Peterborough City Council Landscape Character Assessment 2007; approximately 1km south of the solar PV Site)
- Nassaburgh Undulating Limestone LCA (Peterborough City Council Landscape Character Assessment 2007; approximately 1.6km south of the solar PV Site)

- 7.3.7. The settlement pattern includes nucleated built form within towns and villages nestled within the landscape, and isolated farmsteads associated with large scale agricultural land. The village of Essendine, which is situated adjacent to the Site on both sides of the East Coast Main Line, Ryhall, which is located approximately 800m in the west, and the larger conurbation of Stamford, which is located approximately 1km to the south-west of the solar PV Site, are the nearest larger settlements. Further smaller settlements in close proximity to the solar PV Site include Belmesthorpe (located approximately 700m west), Uffington (located approximately 700m south), Greatford (located approximately 850m east), Braceborough (located approximately 300m north-east) and Carlby (located approximately 550m north).
- 7.3.8. A network of Public Rights of Way (PRoW) traverse the landscape in and around the Site and often terminate at roads limiting connectivity. The Macmillan Way long distance footpath traverses the Site connecting Stamford (south-west of the Site) with Pinchbeck in the north-east and beyond to Boston on the east coast. Along this route, the Macmillan Way skirts the northern edge of Fields 45, 46, 47 and 48 (see Figure 2.2) within the southern area of the Site and continues north-east along a local road (C447) that connects Belmesthorpe with Greatford and bisects the southern and central parcels of the solar PV Site. Views into the Site from along the Macmillan Way, as it passes the Site, are greatly limited by existing vegetation lining the roadsides and field boundaries along the length of this route. Other PRoW, including bridleways (BrAW/1/1 and E169/1) and footpaths (Uffi/5/1, BrAW/9/1, BrAW/7/1 and BrAW/3/1) that route through the Site, afford a mixture of short distance views over individual field compartments that are contained by field boundary vegetation and woodland blocks, and more extensive, longer distance views from more elevated areas over the wider landscape.

## Assessment Methodology

- 7.3.9. The approach to the assessment of landscape and visual effects will consider both impacts to landscape character and visual receptors and will draw upon the established and best practice standards. These include:
- The Guidelines for Landscape and Visual Impact Assessment (3<sup>rd</sup> Edition) (GLVIA3), Landscape Institute and Institute of Environmental Management and Assessment, 2013;
  - An Approach to Landscape Character Assessment, Natural England, 2014: and
  - Visual Representation of Development Proposals Technical Guidance Note 06/19, Landscape Institute, 2019.
- 7.3.10. The LVIA will include an assessment of the effects of the Proposed Development on landscape character. Consideration will also be given to the effects of the Proposed Development on the physical fabric of the Site itself. Reference will be made to the following relevant landscape character and sensitivity assessments:
- National Character Area Profile 75: The Kesteven Uplands, Natural England (2014);
  - The Landscape Character Assessment of Rutland, David Tyldesley and Associates (2003);
  - South Kesteven Landscape Character Assessment (2007);
  - Landscape Sensitivity and Capacity Study Land Around Local Service Centres, RCC (2012), and its Addendum (2017);
  - South Kesteven Landscape Sensitivity and Capacity Study (2011); and
  - Peterborough Landscape Strategy: Landscape Character Assessment for Peterborough City Council, The Landscape Partnership Ltd (2007).
- 7.3.11. The framework for the assessment of effects on landscape character will be relevant local landscape character areas as identified within local landscape

character assessments, informed by other sources listed above; relevant policy and guidance documents; and field observations.

### **Viewpoints and Visual Receptors**

- 7.3.12. A wide variety of visual receptors can reasonably be anticipated to be affected by the Proposed Development. Initial Zone of Theoretical Visibility (ZTV) modelling (Appendix 7.1) and fieldwork have been used to determine which visual receptors are likely to be affected and merit detailed consideration in the assessment effects. In accordance with guidance (GLVIA3), representative, illustrative, and specific viewpoints may be identified to inform the assessment.
- 7.3.13. It is important to note that the ZTV represents a theoretical model of potential visibility of the Proposed Development, and is based on a computer-generated surface model that does not account for localised features such as small woodland copses, hedgerows or individual trees; and / or small elements of built form. As a result, the extent of actual visibility on the ground will be less than suggested by the ZTV study.

### **Study Area**

- 7.3.14. It is proposed that a study area defined by a 2km radius from the solar PV Site boundary is used for the purposes of the LVIA. This extent is based on the findings of field survey; preliminary ZTV modelling based on a wider 3km study area, desk-based analysis; and previous experience of similar recent projects of this nature. It is judged that a 2km study area would cover all potential significant landscape and visual effects arising from the Proposed Development and any associated construction and decommissioning works.

7.3.15. The study area includes the settlements of Essendine, Ryhall, Belmesthorpe, and fringes of Stamford, scattered properties as well as recreational routes and PRow (footpaths, bridleways etc.) and local roads.

### ***Overview of Assessment of Significance***

7.3.16. The sensitivity of receptors, magnitude of impact and significance of effect will be determined using both desktop review of published reports and guidance documentation in combination with Site visit assessment and professional judgements, supported by photography and photomontages following the established guidance detailed in GLVIA3.

7.3.17. Due to the location of landscape and visual receptors within or in close proximity to the Proposed Development, landscape and visual receptors to be included within this LVIA include:

- Landscape Receptors:
  - Rutland Landscape Character Areas:
    - Rutland Plateau Clay Woodlands (Dii);
    - Rutland Plateau Gwash Valley (Diii);
  - South Kesteven Landscape Character Areas: Kesteven Uplands;
  - Grade II\* Burley House RPG (approximately 1.5km south), (considered as part of landscape value); and
  - Rutland Local Plan designations: Area of Local Landscape Value (Ryhall), and Area of Particularly Attractive Countryside (Pickworth) (No longer official designations but used to inform assessment).
- Visual receptors:
  - Local residents and visitors;
  - Users of Macmillan Way Long Distance Footpath;
  - Users of PRow;
  - Users of roads and rail; and
  - Workers.

- 7.3.18. As a consequence of location, distance and/or nature of views, a number of different receptors will be effectively grouped into distinct 'Visual Receptor Groups' and assessed as a group, encompassing all different receptors within, accordingly.
- 7.3.19. The ZTV, provided at Appendix 7.1, has been modelled on solar panel heights and other built form infrastructure such as inverters/battery containers of 3.5m (maximum), and the substation area adjacent to the existing National Grid Substation modelled at a height of 13m (Figure 3.1, Illustrative layout). The baseline study, Site visit and development of the design (including appreciation of landscape and visual sensitivities) have identified areas within the Site to remain undeveloped in order to minimise potential landscape and visual harm. The ZTV illustrates that the visibility of the Proposed Development would be relatively limited across the study area, with substantially reduced visibility to the east as the landform descends towards Braceborough, Greatford, and Tallington, and south / south-west towards Stamford, primarily as a result of landform combined with intervening vegetation. Potential visibility of the Proposed Development extends north-westwards towards Pickworth; however, this visibility is likely fragmented due to the effects of undulating landform and intervening vegetation, including woodland stands. Potential visibility of the Proposed Development is also likely fragmented from areas to the north of the Site either side of the railway corridor, becoming slightly more visible north-east towards Witham on the Hill. In this area, scattered large woodland stands are characteristic of the landscape and serve to break up views of the Site and screen views from areas beyond.
- 7.3.20. A preliminary assessment from desk-study and fieldwork indicates that potential landscape character and visual effects would likely be limited to the solar PV Site and its local context up to approximately 500m east and south, and 1km west and 2km north. Areas at greater distances from the



Site in these respective directions are unlikely to experience any notable or perceptible change to their prevailing characteristics, owing to the limited intervisibility of the Proposed Development as a result of intervening vegetation, existing built development and landform.

- 7.3.21. The representative viewpoints have been selected from publicly accessible locations and generally where the greatest potential effects are anticipated to be experienced. The viewpoint locations represent a wide range of receptors, providing a 'sample' of the potential effects from the locality, with locations purposefully selected to illustrate the range of visual effects; or to specifically ensure the representation of a particularly sensitive receptor.
- 7.3.22. The Site and location of the proposed viewpoints are shown on the ZTV and Viewpoint Location Plan (Appendix 7.1). In addition to the 14 representative viewpoints, illustrative views will be identified during the assessment process to illustrate and describe particular points made within the assessment. These may include locations outside the study area to illustrate the nature of visibility, if necessary. Additionally, we propose to undertake rendered photomontages for years 1 and 15 of the Proposed Development from Viewpoints 1, 2, 3, 10 and 11 to demonstrate the views from a range of receptor points where the Proposed Development may be seen to understand the potential effects. This is considered proportionate and appropriate to understanding where potential significant landscape and visual effects may occur.
- 7.3.23. Details of the proposed representative viewpoints are presented in Table 7.1 below and indicated on the ZTV at Appendix 7.1. Please note all views would be subject to micro-siting and confirmation on the ground.

**Table 7.1: Proposed Representative Viewpoint Locations**

<b>Viewpoint Reference</b>	<b>Representative Receptors</b>	<b>Direction &amp; Distance</b>	<b>Approx. Grid Reference (X,Y)</b>
<b>Viewpoint 1</b>  Stamford/Carlby road junction	Local residents (Carlby) and visitors. Users of local roads and local PRow	Central North, 200m	505259, 313504
<b>Viewpoint 2</b>  Essendine	Local residents and visitors to Essendine. Users of local roads and local PRow	Central North, adjacent to Site	505069, 312909
<b>Viewpoint 3</b>  PRow footpath Carl/1/1	Local residents and visitors to Carlby. Users of local PRow	Central North, 250m	504944, 313554
<b>Viewpoint 4</b>  Carlby Road	Local residents, visitors and users of local roads and local PRow and accessible land at Braceborough Great Wood	North, adjacent to Site	506146, 313119
<b>Viewpoint 5</b>  Carlby Road, east	Visitors and users of local roads and local PRow and	North, adjacent to Site	507082, 312933

<b>Viewpoint Reference</b>	<b>Representative Receptors</b>	<b>Direction &amp; Distance</b>	<b>Approx. Grid Reference (X,Y)</b>
	accessible land at Braceborough Great Wood		
<b>Viewpoint 6</b>  Railway overbridge  Bridleway BrAW/1/1	Users of PRoW and railway	Central, adjacent to Site	506021, 311154
<b>Viewpoint 7</b>  Belmesthorpe Grange, Footpath Uffi/5/1	Local residents, visitors and users of local roads and local PRoW	Southwest , adjacent to Site	504709, 309341
<b>Viewpoint 8</b>  Essendine Road,	Local residents and users of local roads	South, adjacent to Site	506316, 309033
<b>Viewpoint 9</b>  Essendine Road,	Local residents and users of local roads	West, adjacent to Site	504554, 311594
<b>Viewpoint 10</b>  PRoW Footpath E/174 Belmesthorpe,	Local residents and users of local PRoW	West, 600m	504434, 309999

<b>Viewpoint Reference</b>	<b>Representative Receptors</b>	<b>Direction &amp; Distance</b>	<b>Approx. Grid Reference (X,Y)</b>
<b>Viewpoint 11</b> Stamford Road, Essendine	Local residents, visitors to Essendine and users of local roads	Central, 100m	504377, 3122284
<b>Viewpoint 12</b> Local Road B1176  Bridleway E169	Users of local roads and PRoW	West, adjacent to Site	503235, 312632
<b>Viewpoint 13</b>  Byway E123	Isolated residences, visitors and users of local roads and PRoW	West, Adjacent to Site	501036, 313237
<b>Viewpoint 14</b>  Barberry Hill	Isolated residences, visitors, and users of local roads	North, adjacent to Site	502722, 314169

#### Supporting Visual Material

- 7.3.24. The LVIA will include panoramic baseline photographs from representative and illustrative viewpoints that will be illustrated on annotated panels.
- 7.3.25. It is proposed that five fully rendered photomontage visualisations will be produced to support the LVIA from viewpoints 1, 2, 3, 10, 11.

## Potential Effects

7.3.26. The impacts on landscape and visual factors from the Proposed Development are likely to include:

- Change in landscape character from open agricultural land to built form;
- Intrusion of new built structures including fencing;
- Breaks in vegetation where new access routes may be required;
- Loss / interruption of views;
- Screening of existing views;
- Creation of new hedgerows and enhancement of Green Infrastructure (GI) as part of the Proposed Development; and
- Enhancement of existing vegetation and habitats through new planting and management.

7.3.27. Potential impacts on landscape character could include change to the character of the landscape as a consequence of the Proposed Development. The impact would depend on the extent and degree of change to the particular character area in question. Primary mitigation (such as those set out in Table 3.1) to reduce these impacts include retaining and enhancing the existing landscape field structure, incorporating appropriate landscape buffers to minimise harm to existing features, bolstering existing features by improved management, creating new areas of habitat and planting, and breaking up the Proposed Development in the landscape such that it sits more readily within the landscape context. An outline Landscape and Ecological Management Plan (oLEMP) will be submitted as part of the application. The reversible nature of the Proposed Development means that the landscape can be returned to its former agricultural use, should it be decommissioned. The Site lies between and extends over two landscape character areas: Rutland Plateau and the Kesteven Uplands. Both are large landscape character areas where the Proposed Development could affect the character and as such will be assessed in the LVIA chapter of the ES.



- 7.3.28. Potential impacts on visual receptors include a change from views over countryside to views over new solar farm development. Other receptor groups/features may experience little to no visual impact from the Proposed Development despite their close proximity due to containment by existing established boundary vegetation and relatively low-lying nature of the elements of the Proposed Development. Outside of the Site, views of the Proposed Development may be mitigated by layout design, and locating/offsetting built form away from sensitive boundary receptors. Adverse effects on views may also be reduced by enhanced planting on the Site boundaries and within the Site (along existing internal hedgerows) aiding to screen close views and / or contain views to small areas of Proposed Development. Considered design of internal green infrastructure (including tree belts and woodland blocks) may also mitigate by way of deflecting longer views above and over new built solar farm elements acting to conceal it within the landscape. As shown by the ZTV and confirmed by field study, any views of the Proposed Development beyond 2km of the solar PV Site are greatly limited due to the rolling topography and intervening vegetation. As such, effects on visual receptors considered within this LVIA are limited to those within a 2km radius of the solar PV Site.
- 7.3.29. Mitigation measures relating to the establishment and management of new and existing planting within and around the Site will be detailed within an accompanying oLEMP, to ensure that the mitigation objectives prescribed are realised throughout the operation of the Proposed Development.

### **Issues Proposed to be Scoped Out**

#### ***Designated Landscapes***

- 7.3.30. There are no national landscape designations located within or in close proximity to the Site that would be affected by the Proposed Development

and therefore impacts to national landscape designations as a result of the Proposed Development are scoped out of the EIA.

7.3.31. There are two former local landscape designations outside of the Site but within the 2km study area as identified in the evidence base of 2001 Rutland Local Plan:

- 1) Area of Particular Attractive Countryside, and;
- 2) Area of Local Landscape Value.

7.3.32. These designations have not been retained in the adopted Local Development Framework planning policy. However, reference to these local designations is made within current evidence base documents including the 2012 Landscape Sensitivity and Capacity Studies (for Service Centres and Wind Turbines). These documents would be used to aid judgements on sensitivity and value of the local landscape context and inform design development but are not directly assessed. It is also important to note that the nature of solar development is very different in character to wind energy developments which is the basis of assessment for one of these studies.

7.3.33. Due to the gently undulating terrain and intervening vegetation, the Proposed Development has very limited visibility from landscape character areas located over 1km from the Site and as such their character would not be affected and can be scoped out of the assessment.

7.3.34. Given the lack of intervisibility between the Grade II Greatford Hall, located approximately 600m east of the Site, and the Grade II Uffington Park, which is located approximately 650m south of the solar PV Site, these have been excluded from assessment within the LVIA. In this area the Proposed Development has been excluded from easternmost fields.

- 7.3.35. The Grade II\* Burley House RPG is located approximately 1.5km south of the Site at its closest point, but over 2.3km from the proposed built elements (solar arrays) of the Proposed Development. In this area, the Proposed Development has been set back from the Site's protuberance southwards, to allow for a suitable landscape buffer to the Proposed Development in this direction. The Grade II listed Holywell Hall Park RPG (approximately 2.5km north-west of the Solar PV Site) also has very limited visibility and both are therefore scoped out of the EIA.
- 7.3.36. Visual receptors groups assessed will be limited to those receptors within the 2km study area and maybe reduced further pending further assessment of Zones of Visual Influence (ZVI) based of detailed field study.
- 7.3.37. Early and continued development of the design has identified potentially affected settlement fringes and residential properties and resultantly, the proposed built solar development footprint has been set back considerably from these boundaries (e.g. around Essendine), providing a sufficient buffer between these receptors and Proposed Development, to avoid the potential risk of 'overwhelming' or 'over-bearing' visual effects to residential properties. As such, residential amenity will not be assessed within this LVIA and is scoped out of the EIA. A Residential Visual Amenity Assessment will be undertaken and submitted as part as a standalone report as part of the DCO application.

### **Consultation**

- 7.3.38. Engagement with LCC, RCC and SKDC has commenced to agree the assessment methodology, including the location of viewpoints, and photomontages.

## 7.4. Ecology and Biodiversity

### *Introduction*

- 7.4.1. This section of the Scoping Report sets out the approach to the Ecology and Biodiversity Assessment and sets out a summary of the baseline surveys undertaken to date, extent of the study area and key reference documents that would inform the assessment of potential effects on designated sites, existing habitats and species onsite.
- 7.4.2. A suite of detailed surveys has been undertaken for the Site including an extended Phase 1 habitat survey, water vole and otter surveys, badger survey, breeding bird survey, wintering bird surveys and great crested newt (GCN) surveys. Input into the design of the Proposed Development was provided at an early stage and included the retention of the most valuable habitats onsite such as hedgerows and woodland (as set out in Table 3.1), and habitat creation and enhancement measures in areas outside the solar arrays themselves, as illustrated on Figure 3.1.

### *Baseline Conditions*

#### *Desk Study*

- 7.4.3. A desk study was carried out to gather existing records and information on designated sites and protected or otherwise notable<sup>1</sup> species within the local area.
- 7.4.4. Information on non-statutory designated sites, protected, notable and invasive species within a 2km radius of the Site boundary was obtained

<sup>1</sup> Notable species here include those of national or local conservation interest. Species of national conservation interest are Species of Principal Importance (Section 41 of the NERC Act), those listed in Red Data Lists for England or the UK, red-listed species in *Birds of Conservation Concern* list (Eaton *et al.*, 2015), and species designated Nationally Scarce or Nationally Notable. Species of local conservation interest are those for which Leicestershire and Rutland has a Biodiversity Action Plan.

from the Lincolnshire Environmental Records Centre (LRC) and from the Leicestershire and Rutland Environmental Records Centre (LRERC).

- 7.4.5. The Multi-Agency Geographic Information for the Countryside (MAGIC) database (Defra, 2021; accessed most recently 17<sup>th</sup> November 2021) and Natural England's designated site information (2021) were also consulted to establish the ecological context of the Site and to search for information on internationally important designated sites up to 10km from the Site, other statutory designated sites within 2km and ponds within 500m of the Site.
- 7.4.6. Detail of the legal and policy protection afforded to relevant protected and notable species and designated sites is provided in Annex 2 of Appendix 7.2.

### ***Field Survey***

- 7.4.7. The details of the surveys carried out and the baseline conditions identified are set out in the Ecological Baseline report provided at Appendix 7.2.
- 7.4.8. The baseline for habitats and protected and notable species has been established by carrying out a suite of surveys including: extended Phase 1 habitat survey undertaken on 30<sup>th</sup> March, 31<sup>st</sup> March and 29<sup>th</sup> April 2021, followed by protected species surveys for water vole and otter, breeding birds, wintering birds (ongoing) and great crested newt.
- 7.4.9. The section below sets out a summary of the baseline conditions.

### **Designated Sites**

- 7.4.10. Two international designated sites are present within 10km of the Site, the Rutland Water Special Protection Area (SPA) and Ramsar Site, which are located approximately 8.65km to the south-west.



- 7.4.11. Seven national statutory designated sites are present within 2km of the Site. All of these are Sites of Special Scientific Interest (SSSIs). Tolethorpe Road Verges SSSI comprises the verges along Ryhall Road within the Site. Ryhall Pasture and Little Warren Verges SSSI is directly adjacent to the north west extents of the Site. Newell Wood SSSI is located 340m to the north-west of the Site (see Figure 1 of Appendix 7.2). Great Casterton Road Banks, Tickencote Marsh, Bloody Oaks and East Wood SSSI are all located over 400m from the Site boundary.
- 7.4.12. A total of 98 non-statutory Local Wildlife Sites (LWS) are present within 2km of the Site. The majority of these are designated for habitats (predominantly hedgerows, grassland and woodland) with many also featuring locally or nationally scarce. These LWS are listed in Annex A of Appendix 7.2 and shown on Figure 1 of Appendix 7.2.
- 7.4.13. Nine LWSs are located wholly or in part within the Site. . An additional 26 LWSs are directly adjacent to the Site boundary or within 10m (generally separated by a minor road). Most of these LWSs are protected hedgerows of lengths of road verge.
- 7.4.14. The remaining sites are between 15m and 2km from the Site.

### ***Habitats***

- 7.4.15. The Site consists of a number of fields in an agricultural context with associated hedgerows, ditches, ponds, woodland parcels and tracks and buildings. The results of the Phase 1 habitat surveys are shown on Figure 3 of Appendix 7.2.
- 7.4.16. The majority of the Site consists of arable farmland, which is largely in intensive agricultural management for cereals, with the majority of field margins measuring less than 1m in width. Many fields are very large (the

largest being over 58ha. The fields support a very low diversity of arable weeds.

- 7.4.17. The arable fields are of low intrinsic ecological value and are not Habitats of Principal Importance (HPI) as defined by the Natural Environment and Rural Communities (NERC) Act 206 (as amended). The intense nature of the agricultural practice and very limited margins mean they are not considered to be ecologically valuable and are not HPIs.
- 7.4.18. Areas of improved grassland are present across the Site, predominantly forming margins to arable fields. Improved grassland areas are dominated by perennial rye grass *Lolium perenne* with very few herbs present (predominantly white clover *Trifolium repens* and creeping buttercup *Ranunculus repens*). At the time of the survey, these areas were unmanaged and had relatively long sward (averaging approximately 25cm). This grassland does not meet the description of any HPIs.
- 7.4.19. Areas of species-poor, semi-improved grassland are also present across the Site, predominantly forming margins to arable fields. These support a slightly higher plant species diversity, and in addition to the species described above, contain grasses such as cock's-foot *Dactylis glomerata*, false oat grass *Arrhenatherum elatius* and red fescue *Festuca rubra*. Herbaceous species include greater plantain *Plantago major*, broadleaved dock *Rumex obtusifolius*, chickweed *Stellaria media*, dandelion *Taraxacum agg.*, groundsel *Senecio vulgaris*, spear thistle *Cirsium vulgare*, yarrow *Achillea millefolium*, ragwort *Jacobaea vulgaris*, and common mouse-ear *Cerastium fontanum* and creeping thistle *Cirsium arvense*. This grassland does not meet the description of any HPIs.
- 7.4.20. There are multiple parcels of woodland distributed across the Site, some of which are semi-natural broadleaved woodland. These woodlands are dominated by pedunculate oak *Quercus robur* and ash *Fraxinus excelsior*,

but silver birch *Betula pendula*, willow *Salix sp.*, hybrid black poplar *Populus x euramericana* and alder *Alnus glutinosa* are present. Most woodland parcels feature a relatively dense understorey, consisting predominantly of hazel *Corylus avellana*, holly *Ilex aquifolium*, elder *Sambucus nigra* and hawthorn *Crataegus monogyna*. The ground flora is relatively diverse, with species including bluebell *Hyacinthoides non-scripta*, ground ivy *Glechoma hederacea*, dog's mercury *Mercurialis perennis*, lords-and-ladies *Arum maculatum*, wood sorrel *Oxalis acetosella*, ragged robin *Silene flos-cuculi*, spurge laurel *Daphne laureola*, wood anemone *Anemone nemorosa* and foxglove *Digitalis purpurea*. Some of these species are ancient woodland indicator species; however, MAGIC does not identify any of the woodlands within the Site as ancient semi-natural woodland. This woodland meets the definition of the Lowland mixed deciduous woodland HPI (Maddock, 2011). Additional woodland, including ancient woodland and replanted ancient woodland, is present outside of the Site, adjacent to the northern, southern and north-western Site boundaries.

- 7.4.21. There are also parcels of onsite plantation woodland which show clear evidence of recent planting (e.g. presence of tree guards, regular lines of young or semi-mature trees) or have been visibly recently planted based on reviewing older aerial imagery. The majority of plantation woodland is broadleaved, with a mixture of similar native species to the semi-natural woodland. Due to the recent age of the plantations, the understorey layer is poorly developed or absent, and the ground layer is species poor. This woodland does not qualify as an HPI. Approximately 0.2ha of plantation woodland towards the east of the Site is dominated by planted non-native coniferous trees including spruce *Picea sp.* and fir *Abies sp.* This woodland does not qualify as an HPI.
- 7.4.22. A former railway embankment in the western extent of the Site (designated as the Essendine Dismantled Railway Embankment LWS adjacent to Field

19 as shown on Figure 2.2) features dense mixed scrub of comparative high species richness. Woody species include hawthorn, blackthorn, field maple *Acer campestre*, holly, elder, hazel, cherry *Prunus sp.*, bramble *Rubus fruticosus*, wych elm *Ulmus glabra*, and occasional dog rose *Rosa canina*. The ground flora is diverse with bluebell, dog's mercury, lords and ladies, wood sorrel, and foxglove all present. Other patches of dense scrub are also present across the western half of the Site, these are all species-poor and often dominated by a single species, generally either bramble, hawthorn or blackthorn *Prunus spinosa*. The ground flora within these patches are either non-existent or very sparse and lacking in diversity. This habitat is not a HPI.

- 7.4.23. Most external boundaries and some internal boundaries of the Site feature native hedgerows. Some species-rich sections are present with over five woody species per 30m section. These include hawthorn, blackthorn, field maple, holly, elder, hazel, cherry, bramble, wych elm, field elm *Ulmus minor* with occasional dog rose. The majority of hedgerows on Site are species-poor, and formed by one to three woody species, usually blackthorn and/or hawthorn. Many hedgerows across the Site feature one or several standard trees, including mature pedunculate oak, beech *Fagus sylvatica*, ash, hybrid black poplar, and various willow species *Salix spp.* The hedgerow bases largely support common species such as lords-and-ladies, dog's mercury, common nettle *Urtica dioica*, cleavers *Galium aparine*, ground-ivy and common hogweed *Heracleum sphondylium*; however, the first two species are indicative of older hedgerows and predominantly only present in the species rich hedgerows. Most hedgerows, particularly in the east of the Site, are intensively managed by cutting and show structural indicators of poor condition (abundant horizontal and vertical gaps), with some hedgerows defunct and/or left to grow out into scrubby treelines. All the hedgerows on Site are considered to meet the description of the Hedgerows HPI.

- 7.4.24. An analysis of aerial imagery and mapping revealed the presence of 24 ponds onsite or within 500m of the Site boundary. There are nine ponds onsite or on its boundary, with an additional 13 ponds within 500m of the Site boundary (see Figure 2 of Appendix 7.2). Of the nine ponds present within the Site or on its boundary, six held water. The majority of these ponds are situated at the edge of pockets of woodland and are heavily shaded, although most ponds have aquatic and marginal vegetation present. These ponds are described in detail under the 'Amphibians' subheading below. All the ponds onsite holding water have potential to meet the description of the Ponds HPI (Maddock, 2011) based on the presence of aquatic species and water quality parameters.
- 7.4.25. The West Glen River flows through Fields 20, 21, 24 and 26, as indicated on Figure 2.2. This watercourse features a natural river channel dominated by marginal vegetation, predominantly common reed *Phragmites australis* and bulrush *Typha latifolia*. Emergent/submerged plants are also present in patches, but a detailed survey was not undertaken to identify these down to species level. The banks of the river comprise of a mosaic of species poor semi-improved grassland, semi-improved neutral grassland, scattered scrub and tall ruderal vegetation. The river has the potential to meet the description of the Rivers HPI (Maddock, 2011) based on the presence of aquatic species and water quality and hydrological parameters, although this was not assessed in detail.
- 7.4.26. A mixture of dry and wet field ditches are present across the Site. These generally did not feature aquatic vegetation, with any vegetation present reflecting the surrounding habitat (generally species-poor grassland field margins as described above). This habitat does not meet the description of any HPIs.

7.4.27. Small pockets of tall ruderal vegetation are present, particularly in the western extent of the Site. These are too small to map and often form transitional areas between other habitat types. Species noted included common nettle, broad-leaved dock and common hogweed. This habitat does not meet the description of any HPis.

7.4.28. The Site also includes small areas of bare ground (e.g. access tracks), scattered trees and hard standing. There are also several farm buildings present as shown on Figure 3 of Appendix 7.2.

### ***Protected and Notable Species***

#### Bats

7.4.29. All species of bats are European Protected Species (EPS) and seven species are also SPIs and a local BAP species in Lincolnshire, Leicestershire and Rutland.

7.4.30. Numerous records of bats were returned from the LRC and LRERC with at least eight species. Most are relatively common species, though very low numbers of records of barbastelle *Barbastella barbastellus* and whiskered bat *Myotis mystacinus* were also returned.

7.4.31. The three buildings in the eastern part of the Site (B1-B3) (see Figure 3 of Appendix 7.2) are steel-framed structures and do not support potential roost features (PRF) and have negligible suitability for roosting bats.

7.4.32. A total of 163 field and hedgerow trees across the Site were assessed as having at least Low suitability for roosting bats. Additionally, mature patches of woodland onsite are likely to contain further trees with roosting opportunities for bats. The intensively-managed arable fields which make up the majority of the Site are likely to be of Very Low suitability for foraging bats. The woodlands (particularly areas of mature woodland with large trees) have suitability for foraging, as do hedgerows, scrub and lines of



trees, especially where mature trees and other features, such as ponds, are present and the boundary features are reasonably continuous. Small pockets of semi-improved neutral grassland also have moderate suitability for foraging, especially where these are associated with hedgerows or other woody features.

- 7.4.33. Hedgerows and lines of trees (as well as linear scrub features such as the Essendine Dismantled Railway Embankment LWS) and the West Glen River may also provide important commuting routes for bats, especially where they form continuous corridors across the site or between woodland patches, and/or have wide grassland margins.

#### Badgers

- 7.4.34. Numerous records of badgers were returned from the LRC and LRERC.
- 7.4.35. The intensively-managed arable fields, which make up the majority of the Site are of Low suitability for foraging badgers. However, the woodland, hedgerows, scrub and other woody features have suitability for foraging and sett-building this species, and patches of non-woody, semi-natural habitats such as grassland field margins and tall ruderal vegetation provide additional suitable habitat.
- 7.4.36. A total of 16 badger setts were located across the Site (see Confidential Appendix 4 and Figure 7 of Appendix 7.2). These are concentrated in the centre, southern and eastern extents of the Site, predominantly in field boundaries, at the edges of woodland and in scrub. Of these badger setts, ten constituted main setts with at least three entrances, and the remainder comprised likely outlier setts with a single, isolated entrance. Badgers are fully protected under the Protection of Badgers Act 1992.

### Hazel Dormouse

- 7.4.37. Hazel dormouse is an EPS and an SPI and local BAP species in Leicestershire and Rutland.
- 7.4.38. No records of hazel dormouse were returned from LRC and LRERC and the species is rare in Rutland and Lincolnshire. The hedgerows, woodland and scrub onsite are suitable for the species, but due to the extent of gaps and connectivity, only low numbers are likely to be present if they occur onsite.

### Water vole

- 7.4.39. Water voles and their burrows are fully protected under the Wildlife and Countryside Act 1981 (as amended) and are an SPI and a local BAP species in Lincolnshire and Leicestershire and Rutland.
- 7.4.40. Several records of the species were returned from LRC and LRERC including for the West Glen River, 40m from the Site.
- 7.4.41. The ditches onsite are unsuitable for water vole with most being dry at the time of the surveys and intensively managed with only narrow margins of short grassland present and an absence of aquatic vegetation. The West Glen River does however provide suitable habitats for the species and evidence of their presence was recorded where it crosses the Site.

### Otter

- 7.4.42. Otter is an EPS and an SPI and a local BAP species in Lincolnshire and Leicestershire and Rutland.
- 7.4.43. The LRC and LRERC returned 20 records of otter *Lutra lutra*. The closest record of an otter to the Site was an observation approximately 15m north of the Site on the West Glen River, west of Carlby in 2009.

7.4.44. The West Glen River has suitability for this species, with areas of dense cover for holt-building. No evidence of otter was returned from the West Glen River during the water vole survey visits; however, this species may be present along this watercourse.

#### Other SPI mammals

7.4.45. Records were returned from LRC and LRERC for other notable mammals including brown hare *Lepus europaeus* (41 records), hedgehog *Erinaceus europaeus* (38) and harvest mouse *Micromys minutus* (three).

7.4.46. Brown hare is present onsite with the species being recorded during the breeding bird surveys, with a peak of 17 individuals. The arable land comprising the majority of the Site, as well as smaller parcels of grassland, are suitable habitat for this species. Brown hare is an SPI.

7.4.47. The closest record of a hedgehog returned from the LRC and LRERC to the Site was 30m north, to the east of Braceborough Grange, in 2015. The Site has some suitable habitat for hedgehog in the hedgerows, woodland, and grassland therefore this species may be present on Site. Hedgehog is an SPI.

7.4.48. The records returned from the LRC and LRERC for harvest mouse are over 40 years old. The intensive arable farmland which dominates the Site represents sub-optimal habitat for this species, with the poor semi-improved grassland patches and field margins providing habitat of a higher suitability. No evidence of harvest mouse was detected during the extended Phase 1 habitat survey, although this species is hard to detect and may be present onsite. Harvest mouse is an SPI.

7.4.49. No records of polecat *Mustela putorius* were returned by the LRC or LRERC but this species is reportedly present on the western edge of the Site along

the Drift (information supplied by Tom Tew of Naturespace). This species is an SPI.

7.4.50. A number of other mammals are present within the Site, including several deer species. However, as most species such as muntjac *Muntiacus reevesi*, are non-native and included in Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), they are not an ecological feature which requires further consideration. The native roe deer *Capreolus capreolus* may also be present; however, this is also not included in any lists which would mean the species merits specific further consideration.

#### Birds

- 7.4.51. All wild birds, their nests, eggs and young are protected under the Wildlife and Countryside Act 1981 (as amended). There are many species listed as SPIs (discussed as relevant below). Lincolnshire has a group BAP for farmland birds.
- 7.4.52. A total 1,775 records of birds were returned from the LRC and LRERC. This included records of three Schedule 1 species which have the potential to breed on Site: red kite *Milvus milvus*, kingfisher *Alcedo atthis* and barn owl *Tyto alba*. A further 16 species included in the records, which are SPIs, may also occur within the Site: starling *Sturnus vulgaris*, lapwing *Vanellus vanellus*, skylark *Alauda arvensis*, house sparrow *Passer domesticus*, linnets *Linaria cannabina*, yellowhammer *Emberiza citrinella*, song thrush *Turdus philomenos*, yellow wagtail *Motacilla flava*, reed bunting *Emberiza schoeniclus*, turtle dove *Streptopelia turtur*, tree sparrow *Passer montanus*, bullfinch *Pyrrhula pyrrhula*, cuckoo *Cuculus canorus*, corn bunting *Emberiza calandra*, lapwing *Vanellus vanellus* and grey partridge *Perdix perdix*.
- 7.4.53. A total of 48 bird species were recorded during the bird survey as either confirmed or likely breeding onsite. This included a range of ubiquitous SPIs

and those typical of farmland, hedgerows, woodland and scrub habitats. Additionally, species which are typically ground-nesting were also recorded including skylark (58 pairs), lapwing (one pair) and yellow wagtail (two pairs). All three are SPIs.

7.4.54. The Site supports a small number of larger fields, but these are largely in intensive arable use. Therefore, there is potential for wintering species to include species such as lapwing and golden plover *Apicaria pluvialis* as well as very small numbers of ducks. However, given that the larger fields are limited in number and that there are no SPAs for these species in the vicinity (at least 10km), the winter usage of the Site by waders and wildfowl is likely to be very limited.

7.4.55. The surveys being carried out to date have not recorded any golden plover and only one lapwing on one occasion, which flew over the Site only. Only small numbers of passerines such as flocks of skylark and yellowhammer have been observed. One large flock (of approximately 3,000) of starling was observed on one occasion, but this was a mobile flock and not observed on other visits.

#### Reptiles

7.4.56. All reptiles are fully protected under the Wildlife and Countryside Act 1981 (as amended) and SPIs.

7.4.57. A total of 43 records of three reptile species from within 2km of the Site: common lizard *Zootoca vivipara* (22 records), grass snake *Natrix helvetica* (19) and slow worm *Anguis fragilis* (two). Two records from the LRC and LRERC for common lizard originate from within the Site, one adjacent to an isolated patch of woodland in the eastern extent of the Site in 2020, and one adjacent to a road in the north-western extent of the Site in 1996.

7.4.58. The arable land which dominates the Site is of Very Poor suitability for reptiles but some suitable habitat for reptiles is present onsite, predominantly longer and less-managed grassland forming field margins to arable fields. The riparian vegetation along the banks of the West Glen River are also suitable for grass snake.

#### Amphibians

- 7.4.59. A total of 34 records of amphibians were returned from the LRC and LRERC, including ten of GCN and five of common toad *Bufo bufo*. The closest record of a GCN to the Site was located approximately 470m north-east of the Site in Braceborough during 2013. The closest record of a common toad was located approximately 350m from the Site in Essendine during 2000.
- 7.4.60. Of the nine ponds on or adjacent to the Site, three were found to be dry or absent altogether during the extended Phase 1 habitat survey. The remaining six ponds held water and these, plus two offsite ponds which were immediately adjacent to the Site boundary and accessible from the Site, were surveyed using eDNA. The eDNA surveys of these eight ponds did not return evidence of GCN suggesting they are absent. These ponds were also subject to HSI assessments and were assessed being Poor (five ponds), Below average (one pond), Average (one pond) or Good (one pond).
- 7.4.61. Ponds 12 and 24 are 430m and 360m respectively from the Site boundary and surrounded by good terrestrial habitat. GCN from these ponds (if present) are unlikely to be using the Site. Ponds 21, 22 and 23 form a small cluster on the far side of a water course with the closest pond (Pond 21) being 230m from the Site and are also surrounded by suitable terrestrial habitat, meaning any newts present are unlikely to then be present on the Site. The remaining nine offsite ponds (Ponds 9, 10, 11, 13, 14, 15, 16, 17,



21, 22 and 23) vary between 50m and 250m from the Site boundary and were not accessed for survey. The pond locations are indicated on Figure 2 of Appendix 7.2.

7.4.62. GCN is an EPS and an SPI, while common toad is an SPI.

#### Invertebrates

7.4.63. The LRC and LRERC returned 681 records of 47 invertebrate species within 2km of the Site. The Site generally offers habitat of poor or very poor value for invertebrates due to the intensive management of the arable land, and the majority of habitats are unlikely to support any notable populations or assemblages of invertebrates. The more mature woodland areas and veteran trees within field boundary features may support some saproxylic (dead wood-reliant) species, while the aquatic habitats (particularly the West Glen River) may support notable aquatic species.

#### Plants

7.4.64. The LRC and LRERC returned 1,200 records of 251 plant species within 2km of the Site. This includes a range of notable species which are typical of more diverse grassland such as bee orchid *Ophrys apifera*, man orchid *Orchis anthropophora*, and arable weeds including corn chamomile *Anthemis arvensis*, hound's -tongue *Cynoglossum officinale*, night-flowering catchfly *Silene noctiflora*, sharp-leaved fluellen *Kickxia elatine*, sulphur clover *Trifolium ochroleucon* and venus' looking-glass *Triodanis perfoliata*.

7.4.65. The majority of the Site comprises intensively-managed, species-poor habitats of low or very low value for plant diversity, and is unlikely to support any notable populations or assemblages of plants. The more mature woodland areas, hedgerows and aquatic habitats may support some notable species. The grassland areas onsite are of very low diversity and

unlikely to support notable plant communities. The arable land was not noted to support notable arable weeds during the Phase 1 habitat survey.

### **Assessment Methodology**

7.4.66. The main guidance document used when assessing impacts to ecological features is the Ecological Impact Assessment (EclA) guidance published by the Chartered Institute for Ecology and Environmental Management (CIEEM) in 2016.

7.4.67. The Ecology Baseline Report (Appendix 7.2) sets out the main legislation pertaining to habitats and species which has been considered in identifying potential ecological features for further considerations. These include:

- Environment Act 2021.
- Natural Environment and Rural Communities (NERC) Act 2006 – Habitats and species of principal importance (England).
- The Conservation of Habitats and Species Regulations 2017 (as amended).
- Wildlife and Countryside Act 1981 (as amended)
- Protection of Badgers Act 1992 (as amended).

7.4.68. The Ecology Baseline Report (Appendix 7.2) provides full details of the relevant legislation and planning policy which has been considered in this assessment.

### **Study Area**

7.4.69. With the exception of the wintering birds, where the field surveys were extended to neighbouring large fields to gather contextual information on mobile species, the field surveys carried out to inform the baseline conditions covered the Site. This is due to the contained nature of the Proposed Development and the type of development, which will have a very limited Zone of Influence (Zol), in so far as ecological impacts are

concerned. Due to the nature of the Proposed Development, wider ranging impacts, such as additional recreational activities which might have an adverse effect on habitats in the wider area, would not occur as a result of the Proposed Development. The desk study; however, included searches for records of protected or notable species and nationally designated and statutory and non-statutory sites within 2km and for internationally important designated sites within 10km. This wider search area was used to gather contextual information and is proportionate for the nature and type of development proposed.

#### Determining the Ecological Significance of Effects

- 7.4.70. The EclA Guidelines states that impacts should be determined as having a significant ecological effect when they have an adverse or beneficial impact on the integrity of a defined site or ecosystem and/or the conservation status of habitats or species within a given geographical area. This constitutes the guiding principle in determining whether an effect is ecologically significant, and if so at what level.
- 7.4.71. An effect is determined to be significant or not, in ecological terms, in relation to the integrity of the defined site or ecosystem(s) and/or the conservation status of habitats or species within a given geographical area, which relates to the level at which it has been valued. If an effect is found not to be significant at the highest geographical level at which the resource or feature has been valued, it may be significant at a lower geographical level. By way of example, limited impacts on woodland of county importance might be assessed as being significant at a district level of importance.
- 7.4.72. The integrity of a protected/designated site is defined in relation to guidance given in connection with EC Habitats Directive 92/43/EEC as the coherence of its ecological structure and function across its whole area that enables it

to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified.

- 7.4.73. The conservation status for habitats is determined by the sum of the influences acting on the habitat and its typical species that may affect its long-term distribution, structure and functions as well as the long-term survival of its typical species within a given geographical area. The conservation status for species is determined by the sum of influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within a given geographical area.
- 7.4.74. The value of any feature that will be significantly affected at a given geographical level is used to determine the implications, in terms of legislation, policy and/or development control. The 2016 CIEEM guidance states: *"if an ecological resource or feature is likely to experience a significant impact, the consequences in terms of development control, policy guidance and legislation will depend on the level at which it is valued. Significant impacts on features of ecological importance should be mitigated (or compensated for) in accordance with guidance derived from policies applied at the scale relevant to the value of the feature or resource. Any significant impacts remaining after mitigation (the residual impacts), together with an assessment of the likelihood of success in the mitigation, are the factors to be considered against legislation, policy and development control in determining the application."* The CIEEM guidance also confirms the approach that should be adopted in identifying an appropriate level of mitigation.
- 7.4.75. Priority should be given to the avoidance of impacts at source, whether through design of a project or by regulating the timing or location of activities. If it is not possible to avoid significant negative impacts, opportunities should be sought to reduce the impacts, ideally to the point

that they are no longer significant. If this is not possible, but the project is permitted, compensation measures may be appropriate. The residual impacts are those impacts that remain after implementation of mitigation and compensation measures. These impacts and an assessment of the likely success of any mitigation measures (using the scale set out above) are also assessed having regard to the geographic frame of reference.

### **Potential Effects**

#### ***Statutory Designated Sites***

- 7.4.76. Due to the nature of the Proposed Development, no adverse effects to international or national statutory sites further afield than the Site or its boundary are considered likely; however, accidental damage and other direct or indirect effects may occur to the the Ryhall Pasture and Little Warren Verges SSSI and Tolethorpe Road Verges SSSI, adjacent to the Site. Accidental damage will be avoided by implementing appropriate control measures during the construction stage (tertiary mitigation). These will be secured through an outline Construction Environmental Management Plan (oCEMP) which will set out the locations of these features and the measures proposed for their protection (including appropriate fencing). These measures will include appropriate fencing to prevent accidental direct damage and water pollution control measures. Due to the nature of the Proposed Development, no impacts to the SSSIs are likely to occur as a result of noise or air pollution.
- 7.4.77. At this stage it is not known whether highway improvements (temporary or permanent) along Ryhall Road will be required and therefore habitat loss and accidental damage to national designated sites during the construction and decommissioning phase is scoped into the EIA, with operational effects scoped out of the EIA. Potential adverse impacts to the integrity of statutory

designated sites through loss of supporting habitat is scoped out of the EIA for all phases.

### ***Non-statutory Designated Sites***

- 7.4.78. A number of non-statutory designated sites (LWSs) are located within or adjacent to the Site. These will be retained and buffered as part of the proposals for the Proposed Development (as part of primary mitigation) and protected during the construction phase to prevent accidental damage through encroachment by vehicles or construction plant (tertiary mitigation). This will be secured through the oCEMP, which will set out the locations of these features and the measures proposed for their protection (including appropriate fencing).
- 7.4.79. The effects on non-statutory designated sites for the construction and decommissioning phase is therefore scoped into the EIA, with operational effects scoped out of the EIA.

### ***Habitats***

- 7.4.80. All HPIs will be retained within the Site (as set out in Table 3.1), with the exception of breaks for internal access routes and cable corridors where these can't be aligned with existing field gateways. Where appropriate the HPIs will be bolstered with additional planting of diverse habitats to either increase the extent of the HPIs or increase connectivity and structural diversity, such as adding scrub areas with an informal edge adjacent to woodland plots. Therefore, habitat losses will be largely limited to arable land, a habitat of very low intrinsic ecological value.
- 7.4.81. Measures to not only retain but enhance the overall biodiversity of the Site will be implemented with a habitat creation led approach, aimed at delivering at least overall 10% gain in biodiversity value, a beneficial effect. This will include the creation of diverse wildflower grassland in areas



outside the proposed solar array and seeding of permanent grassland within the array.

### ***Protected Species***

- 7.4.82. The majority of high value habitats will be retained within the Site, including woodlands, scrub, hedgerows and associated grassland margins, ditches and ponds. The assessment of potential impacts set out below has accounted for this primary mitigation. .
- 7.4.83. The impacts associated with habitat creation are assessed as part of the construction phase, as they result from actions (such as seeding or planting) taken at this time, though in reality these will develop with time, after the planting of the new habitats and enhancement of existing habitats is carried out.
- 7.4.84. Impacts to protected species during the decommissioning phase would need to be informed by updated surveys. These surveys will be carried out approximately one year prior to decommissioning and the legislation and policy background at that point in time will be used to inform the necessary mitigation to be set out in an appropriate document. These measures will be set out in an outline DEMP.

### **Bats**

- 7.4.85. As set out in Table 3.1, primary mitigation has been incorporated into the Proposed Development and with the potential exception of small breaks in hedgerows for access tracks and cables, all trees, buildings suitable for roosting bats, hedgerows or other linear features used for commuting or foraging bats will be retained. The lighting scheme will be designed to include lighting which is not continuously lit (primary mitigation). Given the uncertainty with regards to the location of the access tracks and cable routes at this stage, effects on roosting or foraging bats during the

construction and operational phase of the Proposed Development are scoped into the EIA.

- 7.4.86. The Proposed Development will include a number of habitat creation measures which will deliver a range of benefits for bats, including the provision of much more extensive foraging habitats replacing arable land. Although this will result in a beneficial effect, operational impacts to bats are scoped out of the EIA.

#### Badgers

- 7.4.87. The Proposed Development will retain the habitats of highest value as a foraging resource for badgers, such as woodland and hedgerows. The locations of any setts will be considered and either retained with an 30m buffer with construction mitigation measures secured within the oCEMP for any works within the vicinity – (tertiary mitigation) or individual setts will be closed under an appropriate licence (tertiary mitigation). The number of setts to be closed will be limited and priority for retention will be given to the more significant setts, such as main setts. Any small losses in terms of setts are not likely to represent a significant adverse effect at anything but at Site level, but have been scoped into the EIA as a precautionary measure. Updated badger surveys will be carried prior to the start of the construction phase to identify any additional setts present within or adjacent to the construction areas, which will be secured within the oCEMP.
- 7.4.88. Suitable gaps (indicatively 30 x 30cm) will be incorporated into all stretches of security fencing (primary mitigation). This will also benefit other mammals. The habitat creation and enhancements will likely increase the amount of foraging habitat for badgers, including the extent of permanent grassland (a more favourable habitat for foraging than arable land), resulting in a beneficial effect.

- 7.4.89. During the operational phase it is unlikely that any impact would arise on badgers and therefore is scoped out of the EIA.
- 7.4.90. At the decommissioning phase, update surveys would be needed to assess the potential effects of the works on the Site on setts. This is therefore scoped into the EIA.

#### Water vole and otter

- 7.4.91. The retention and protection (primary mitigation) of the West Glen River with an appropriate buffer (10m) will ensure that water vole and otter are not subject to adverse effects as a result of the Proposed Development either as a result of habitat loss or degradation during the construction phase. Small scale habitat losses may result from upgrades to existing crossings of the West Glen River. This loss will be minimal, and will be designed to allow continued movement by otter and water vole however construction effects on water vole and otter have been scoped into the EIA as a precautionary measure. Protection measures will be set out in the oCEMP.
- 7.4.92. No effects on this feature are likely to arise during the operational phase and is therefore scoped out of the EIA.
- 7.4.93. At the decommissioning phase, update surveys would be needed to assess the potential effects of the works on the Site these species. This is therefore scoped into the EIA.

#### Hazel Dormice

- 7.4.94. No records of hazel dormouse were returned and the species is rare in Rutland and Lincolnshire. As the hedgerows, woodland and scrub will be retained and protected from artificial light shed or additional fragmentation, no additional surveys for hazel dormouse are proposed and no adverse effects to this species are likely to occur at a population level. There is an

albeit very low risk that in the absence of mitigation, any small amounts of habitat clearance may result in the injury or death of individual dormice. Therefore, under a non-licensed method statement, a two stage vegetation removal will be implemented as a precautionary measure for any hedgerow, scrub or woodland (tertiary mitigation). This would be set out in the CEMP and will involve a first cut in winter (October to February) and the final removal under the supervision of an experienced ecologist during the active season for dormice (mid-April onwards). Vegetation removal may also be needed at the decommissioning stage. Impacts to hazel dormouse during construction and decommissioning phases of the Proposed development are therefore scoped into the EIA. Impacts to hazel dormouse during construction and decommissioning phases of the Proposed Development are therefore scoped into the EIA

- 7.4.95. No impacts to hazel dormouse during the operational phase are likely to occur. These are therefore scoped out of the EIA.

#### Other Mammals

- 7.4.96. The primary mitigation measures will result in the retention and increase in availability of suitable habitat for hedgehog, brown hare and harvest mouse. The small (indicative 30cm x 30cm) gaps created in the security fencing will continue to provide access to the Site for brown hare and hedgehog, both of which will benefit from the provision of permanent grassland in the place of arable land. The Proposed Development will therefore likely result in a beneficial effect for these species.
- 7.4.97. Any habitat creation outside the security fencing areas will likely benefit a range of other larger mammals including roe deer.
- 7.4.98. Impacts to other mammals during the construction and decommissioning phases of the Proposed Development are scoped into the EIA. Due to the

nature of the Proposed Development, no impacts are likely to arise during the operational phase. These are therefore scoped out of the EIA.

### Birds

7.4.99. The majority of the breeding bird interest of the Site is currently supported by the habitats of higher value, such as hedgerow, scrub and woodland. As these are to be retained and buffered (primary mitigation) and enhanced by providing higher value supporting habitat such as diverse grassland and additional scrub, the majority of breeding bird species will benefit from the Proposed Development, resulting in a beneficial effect.

7.4.100. It is, however, likely that in the absence of mitigation, there will be a loss of a number of skylark territories, an adverse effect on a SPI. This species is known to continue foraging in operational solar farms but has been shown to not nest in the array areas as these provide visual barriers avoided by the species. The magnitude of the effect will depend on the extent of the proposed solar array within the Site; however, mitigation will be put in place to enhance the value of retained habitats or newly created habitats for the species. Typically, this may include large scale creation of tussocky grassland with a range of sward height and bare patches. Similarly, a very small number of territories of lapwing and yellow wagtail may be lost as a result of the Proposed Development. Mitigation for these species within retained and created habitats will be explored. Impacts to birds during the construction and decommissioning phases of the Proposed Development is therefore proposed to be scoped into the EIA.

7.4.101. In order to avoid the risk of damaging active nests or injuring/killing dependent young, any vegetation removal of hedgerow, scrub or woodland will be done in two stages (tertiary mitigation). This will be set out in the oCEMP and the first cut will be in winter (October to February) and the final removal under the supervision of an experienced ecologist from mid-April.

- 7.4.102. The oCEMP will also include measures to avoid damaging or destroying nests or injuring or killing dependent young of ground nesting birds (e.g. lapwing, skylark and yellow wagtail). As a precaution, prior to starting construction in area new areas during the nesting season (mid-March to August), an experienced ecologist will carry out a watch of the affected field(s) to determine whether lapwing (or other ground nesting birds) are nesting in the area.
- 7.4.103. During the operational phase, all habitat management works will be carried out outside the nesting season (tertiary mitigation) and no operational activities have the potential to cause injury or death to breeding birds. The provision of additional fruiting species in scrub areas and seed-baring grasses and wildflowers will provide additional habitat for passerines such as yellowhammer and linnet. Therefore, impacts to birds during the operational phase of the Proposed Development is scoped out of the EIA.
- 7.4.104. The Site is highly unlikely to support wintering wildfowl or waders in significant numbers, and species listed as the qualifying interest of with the Rutland SPA would not occur within the Site given the habitats present. However, any mitigation or compensation will be informed by an assessment of the results of ongoing surveys and therefore wintering birds are scoped into the EIA as a precautionary measure.

#### Reptiles

- 7.4.105. The Site supports very limited amounts or habitats suitable for reptiles. The majority of the suitable habitat will be retained and enhanced (hedgerow bases and woodland margins). In the absence of mitigation, vegetation or ground clearance work on suitable habitat where gaps need to be created or widened has the potential to injure or kill individual reptiles and therefore construction and decommissioning effects are scoped into the EIA. An appropriate method will therefore be used for clearance of any suitable



habitat and set out in a CEMP (tertiary mitigation). This will likely involve a two-stage vegetation removal with a first cut in winter (October to February) and the final removal during the active season for reptiles (mid-April onwards). This would be implemented for any small scale hedgerow, scrub or rough grassland removal/clearance.

7.4.106. Overall, the habitat creation and enhancement measures will likely increase the availability of habitat for reptiles, resulting in a beneficial effect and operational impacts to reptiles are scoped out of the EIA.

#### Amphibians

7.4.107. The Site supports few terrestrial habitats with the potential to support amphibians and these are proposed to be retained. All ponds are also proposed to be retained and none within the Site, or adjacent to it, were found to support GCN, though common toad may be present.

7.4.108. Further information on the presence or likely absence of GCN from nearby ponds will be needed to ensure that appropriate mitigation is implemented to avoid injury or death to individual GCN. The level of information needed will depend on the nature of the work to be carried out in these areas and therefore potential impacts during the construction and decommissioning phases are scoped into the EIA.

7.4.109. Overall, the Proposed Development will result in the retention of all potential breeding habitat and provide an increase in suitable terrestrial habitat. There is likely to be a beneficial effect as a result of the Proposed Development

7.4.110. with no impacts to amphibians occurring during the operational phase, therefore this is scoped out of the EIA.

### Invertebrates

7.4.111. The losses of habitat are limited to habitats of very low value for invertebrates. The Proposed Development includes the creation of areas which are likely to be of higher value for invertebrates than the arable land being lost. Therefore, overall, the Proposed Development will likely result in a small scale beneficial effect on this species group and operational impacts to invertebrates are scoped out of the EIA.

### ***Issues Proposed to be Scoped Out***

7.4.112. This section summarises the features being scoped out of the assessment based on the rationale set out above.

7.4.113. The nearest internationally important statutory designated sites identified as part of the desk study work are located approximately 8.65km from the Site. Therefore, no adverse effects to these will occur as a result of the Proposed Development during any phase.

7.4.114. It is highly unlikely that any significant adverse effects will occur indirectly to statutory sites at any phase of the Proposed Development, such as through the loss of supporting habitats for species listed in the ornithological interest of the Rutland Water SPA at the construction phase. This designated site is designated largely for its wintering wildfowl which depend on large expanses of water, which are not found within the Site, therefore the loss of arable land located approximately 8.65 km from the SPA would not result in adverse impacts on its integrity.

7.4.115. During the operational phase of the Proposed Development, no impacts to protected species are likely to occur as:

- The lighting scheme will be designed to avoid artificial lighting on linear features (including hedgerows and water courses), woodland and other

retained or created habitats. This will avoid adverse effects on bats, dormice, otter, water vole, amphibians, birds and other SPis.

- Onsite operational traffic will be minimal and limited to maintenance vehicle movements at very low intensity, with a negligible risk of accidentally injuring or killing any protected or notable species such as wild mammals, amphibians, reptiles or birds.
- No regular presence or work is envisaged onsite leading to disturbance of retained or created habitats.

### ***Consultation***

7.4.116. The consultation process to be undertaken will involve consultation with the Ecology Officers for Leicestershire, Rutland and Lincolnshire County Councils. Non-statutory consultees such as the Wildlife Trusts will also be approached. These stakeholders will be provided with the summary of the baseline of ecological conditions, the general proposals and the principals which will be used for the detailed design of the Proposed Development.

## **7.5. Access and Highways**

### ***Introduction***

7.5.1. This section of the Scoping Report sets out the approach to the Access and Highways Assessment and sets out a summary of the baseline surveys undertaken to date, extent of the study area and key reference documents that would inform the assessment of potential impacts of the Proposed Development upon the transport network. This section sets out the proposed approach that will be taken in the assessment to determine the significant effects of the construction, operational and decommissioning phases of the Proposed Development.

7.5.2. This section will also detail how the significant effects will be mitigated through the implementation of suitable mitigation measures to ultimately

determine whether the proposals are acceptable in environmental terms, with respect to access and highways.

### ***Baseline Conditions***

#### Highway Network

- 7.5.3. At present, details are not yet confirmed on where precisely the solar arrays will arrive from, with it likely being one of the many ports within the United Kingdom. On that basis, an initial feasibility exercise has been undertaken to determine potential access routes along the Local Road Network (LRN) to the Site from the Strategic Road Network (SRN), as described in Paragraph 2.3.2 of this Scoping Report.
- 7.5.4. The SRN relevant to the Site includes the A1 to the west of the Site and the A47 to the south of the Site that passes through Peterborough. The LRN includes the roads referenced along Routes 1 to 3 as referenced within Paragraph 3.4.3 of this Scoping Report.
- 7.5.5. It is acknowledged that due to the rural nature of the surrounding area, a number of the local roads are subject to weight restrictions (primarily <7.5t) allowing for access only by vehicles below this weight limit.
- 7.5.6. A plan summarising the extent of Routes 1 to 3, as well as presenting the surrounding vehicular weight limit restrictions, is provided within Figure 7.1.
- 7.5.7. A review of the existing Department for Transport (DfT) static counts has been undertaken along Routes 1 to 3, to identify where there are already baseline Annual Average Daily Total (AADT) traffic flows within the area,

which also provide an indication of the existing proportions of any Heavy Goods Vehicles (HGVs) along the routes where DfT count data is available.

7.5.8. Where “gaps” have been identified in the existing DfT static counts along the potential routes from the SRN to the Site, a number of Automatic Traffic Counter (ATC) surveys were undertaken, which recorded seven day 24-hour traffic flows, speeds and vehicle classifications across the LRN. The surveys were undertaken the week commencing on the 11<sup>th</sup> of October 2021, which was identified as a suitable period for the surveys to take place as it was within a 'traffic neutral' month and was outside of any half term periods, as per the DfT Transport Analysis Guidance (TAG) UNIT M1.2.

7.5.9. The identified DfT counts are from 2020 and where AADT flows only were provided, the hourly flows have been factored based on nearby ATC counts. Where DfT counts are located in close proximity to ATC static counts (locations 15, 18, and 20), only the ATC counts are identified as they are considered to be more accurate and up-to-date.

7.5.10. The locations of the DfT counts and ATC counts on the respective links are identified within Figure 7.2 to Figure 7.4, with the full ATC data included at Appendix 7.3.

7.5.11. Table 7.3 summarises the baseline traffic flows.

**Table 7.3: Baseline Traffic Flows**

Route	Link	Name	Source	AM		PM		Daily	
				Total	HGVs	Total	HGVs	Total	HGVs
1	1	A6121 Bourne Road	ATC	885	64	821	49	8,054	660
	2	A6121 Stamford Road	ATC	963	86	899	57	8,886	892
	3	A6121 Turnpike Road	ATC	952	77	884	50	8,800	790

Route	Link	Name	Source	AM		PM		Daily	
				Total	HGVs	Total	HGVs	Total	HGVs
	4	Ryhall Road East	ATC	442	50	449	37	3,937	528
	5	Ryhall Road West	ATC	568	49	515	33	4,525	498
	6	B1081 Old Great North Road	ATC	590	59	549	37	5,621	608
2	1	A6121 Bourne Road	ATC	885	64	821	49	8,054	660
	2	A6121 Stamford Road	ATC	963	86	899	57	8,886	892
	3	A6121 Turnpike Road	ATC	952	77	884	50	8,800	790
	7	A6121 Ryhall Road (bridge)	ATC	823	58	626	26	7,071	470
	8	A6121 Ryhall Road	DfT	871	10	663	4	7,482	81
	9	Uffington Road	DfT	616	17	525	9	6,197	173
	10	A1175 Main Road	ATC	1,095	101	934	56	11,026	1,028
	11	A1175 Stamford Road	DfT	554	15	473	9	5,583	156
	12	A15 (south of A1175)	DfT	1,089	90	1,056	47	12,217	1,060
	13	A15 (west of Peterborough)	DfT	1,018	83	1,015	43	11,569	971
3	1	A6121 Bourne Road	ATC	885	64	821	49	8,054	660
	14	A6121 Stamford Road (Carlby)	ATC	793	73	758	45	7,244	691
	16	A6121 Stamford Road (Toft)	ATC	782	80	752	52	7,400	745
	17	Raymond Mays Way	ATC	898	83	805	36	8,729	836
	19	A15 (Northorpe Main Road)	ATC	1,508	165	1,449	84	16,839	1,928



Route	Link	Name	Source	AM		PM		Daily	
				Total	HGVs	Total	HGVs	Total	HGVs
	12	A15 (south of A1175)	DfT	1,089	90	1,056	47	12,217	1,060
	13	A15 (west of Peterborough)	DfT	1,018	83	1,015	43	11,569	971

7.5.12. Personal injury collision data will be obtained from the local highway authorities for the extent of the construction access routes to determine whether there are any existing collision trends or highway safety issues on the local network that could be exacerbated by the Proposed Development.

7.5.13. To further inform the suitability of the identified routes, Ordnance Survey (OS) ‘Mastermap’ data has been obtained and topographical survey data is being obtained to refine the swept path analysis of the proposed access routes for the anticipated vehicles. Further details on this analysis, including an overview of the different types of vehicles expected, will be provided within the ES.

7.5.14. The scope of the baseline data will be discussed further with the relevant key stakeholders, including National Highways, RCC and LCC, to determine whether additional baseline data is required.

Walking, Cycling and Equestrian Network

7.5.15. Due to the rural nature of the Proposed Development, there is a limited provision of footways alongside the carriageways of the roads in the vicinity of the Site. However, there are footways that runs along the northern and southern kerblines of the A6121 through Essendine, the southern kerblines

through Ryhall and the northern and southern kerblines of Ryhall Road through Great Casterton.

- 7.5.16. There are also a number of PRoWs that pass either through the Site or alongside the boundaries between the parcels, as outlined within Paragraphs 2.3.3 of the Scoping Report.
- 7.5.17. There are no on- or off-road cycling facilities within the vicinity of the Site boundary; however, the surrounding roads are generally lightly trafficked and therefore would not deter cyclists.
- 7.5.18. With respect to equestrians, there are two bridleways within close proximity to the Site. PRoW bridleway BrAW/1/1 crosses the eastern extent of the solar PV Site north-south, whilst PRoW bridleway E169/1 routes through the north-western extent of the solar PV Site between the A6121 and B1176 in a general north-west to south-east alignment.
- 7.5.19. The details and usage of the existing pedestrian, cycling and equestrian facilities, including PRoW, will be reviewed within the supporting Transport Assessment to determine whether full or temporary mitigation of these routes is required, as well as also being presented within the ES.

### ***Assessment Methodology***

#### Planning Policy and Guidance

- 7.5.20. With specific reference to Access and Highways, the following policies are to be considered.
- Overarching NPS for Energy (EN-1), adopted by the DECC in July 2011, with reference made to paragraphs 5.13.3 to 5.13.5, which state that if a project is likely to have significant transport implications, a Transport Assessment, Travel Plan and additional transport infrastructure should be provided to mitigate the impacts of the project.

- Emerging Draft Overarching NPS EN-1 (2021), specifically paragraph 4.28.2, states that *“If a project is likely to have significant transport implications, the applicant’s ES should include a transport assessment, using the NATA/WebTAG methodology stipulated in DfT guidance, or any successor to such methodology”*. Applicants should consult the National Highways and Highways Authorities as appropriate on the assessment and mitigation.
- National Planning Policy Framework (NPPF), adopted 20<sup>th</sup> July 2021, which states in paragraph 113 that *“All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.”*

7.5.21. The local planning policy relevant to the Proposed Development is identified within Section 5.7 of this Scoping Report.

7.5.22. In addition to the relevant Access and Highways policy, the following guidance documents will be referred to within the assessment:

- Guidelines for the Environmental Assessment of Road Traffic, produced by the Institute of Environmental Assessment (now the Institute of Environmental Management and Assessment (IEMA) 1993).

#### Assessment Process

7.5.23. The ES will describe and assess the potential impacts associated with any improvements or changes to the network which are either required to facilitate construction of the Proposed Development or are required for restoration purpose on completion of the works.

7.5.24. The nature of the Proposed Development is such that the greatest impact is likely to occur during the construction phase, with this being the focus of the assessment of transport effects presented in the ES. Specifically, the assessment will focus upon the peak construction phase where the impact will be the greatest in terms of both construction vehicles and construction staff being required. The details of the peak construction phase will be clearly presented within the ES once further details are available.

- 7.5.25. With respect to the decommissioning phase, the effects are often similar to, or of a lesser magnitude than the effects generated during the construction phase. However, there can be a high degree of uncertainty regarding decommissioning as engineering approaches and technologies evolve over the operational life of the Proposed Development meaning that future traffic flows cannot be accurately fixed to a future point in time.
- 7.5.26. As the construction period is considered to have the greatest change on the surrounding transport network, only the construction phase will be assessed. The effect of the decommissioning phase is anticipated to be the same or less than the construction phase and therefore not be assessed, as the construction assessment already presents a more robust, worst-case assessment. Nonetheless, mitigation for the decommissioning phase will be provided in the form of a Decommissioning Transport Management Plan (DTMP), which will be prepared and agreed with relevant stakeholders prior to commencement of decommissioning.
- 7.5.27. The assessment will be undertaken primarily through a desktop based assessment, which will be supported by a series of Site visits that will be utilised to validate the findings of any construction routing or abnormal load assessments that may be required.
- 7.5.28. The methodology utilised within the assessment and stages followed can be summarised as follows:
- Initial consultation with the relevant highway authorities and emergency services (National Highways, RCC, LCC, Lincolnshire Police, Rutland Police, etc.);
  - Procure and process baseline traffic data, including DfT static counts and 2021 ATC data, arranging additional surveys where necessary in collaboration with key stakeholders and consultees;
  - Vehicle route feasibility assessments will be undertaken for both construction vehicles and construction staff, including detailed observations of each of the proposed route options and identifying any

sensitive receptors or constraints along the length of the route. It is considered that the main route assessments will primarily comprise the LRN from the SRN to the Site. However, a high level assessment of the potential impact on the SRN will be provided once further details are known on the size of the Proposed Development and associated construction requirements.

- DfT TEMPRO Growth Factors will be used in order to develop and assess future construction years, with an emphasis placed on assessing the peak year, the details of which will be set out within the ES.
- In consultation with the relevant stakeholders, route options would be explored and developed further to determine the feasibility of each route and whether they are acceptable or require further refinement.
- An initial assessment of traffic generation from the Proposed Development on the LRN, including construction routes between the different areas of the Site, will be undertaken as well as an initial assessment of effects.
- Once this traffic assessment is complete, the assessment will be refined to reflect any changes in the design of the Proposed Development or consultation feedback, followed by an additional assessment of the effects. At this stage, the requirement for additional surveys or localised assessments, including junction capacity modelling, will be determined.
- Following the outcomes of the additional assessments to identify the residual impacts, there will be further consultation with the key stakeholders, consultees and residents to discuss the findings.
- A series of mitigation measures will be developed, as appropriate, to mitigate any residual impacts or concerns raised during consultation.
- The assessment will be further refined to reflect this consultation feedback, with appropriate changes made to the assessment, as well as consideration of the cumulative effects of other developments within the area.
- Prior to the application, only the suitable access routes that have been agreed will be put forward for use during the construction and decommissioning phases.

### Study Area

- 7.5.29. The study area within the Access and Highways assessment has been identified as the extent of the LRN from the SRN to the Site that is required to facilitate traffic movements associated with the construction phase of the

Proposed Development, as well as any improvements or changes required to facilitate construction traffic and works required for restoration purposes.

7.5.30. Three potential access routes have been identified for assessment as part of the initial assessment process, as discussed in Paragraph 3.4.3 of this Scoping Report, with the final details of these route options to be confirmed through further consideration once details are available which will be clearly set out within the ES.

7.5.31. As a minimum, it is anticipated that the following key junctions will require consideration:

Route 1

- A1 Great Northern Road / Grantham Lane priority junctions (including A1 slip road onto B1081);
- B1081 / Ryhall Road crossroads junctions; and
- Ryhall Road / B1176 / A6121 priority junctions.

Route 2

- A1175 Uffington Road / A6121 mini-roundabout junction.

Route 3

- A151 West Road / A6121 priority junction.

7.5.32. The scope of the assessment, as well as the requirement for any detailed junction capacity modelling, will be agreed with the relevant authorities prior to the submission of the application.

Assessment Scenarios

7.5.33. The following assessment scenarios will be considered:

- Baseline (2021) - AM, PM and Daily;
- Peak Construction Year (without Proposed Development traffic) - AM, PM and Daily; and



- Peak Construction Year (with Proposed Development traffic) - AM, PM and Daily.

7.5.34. The peak construction year is to be confirmed and presented within the ES once the final layout and size of the Proposed Development is fixed.

#### Overview of Assessment of Significance

- 7.5.35. In terms of the surrounding transport network, the sensitivity to change in traffic levels of any given link or junction is generally assessed by considering the residual capacity of the network under existing conditions, whilst also considering the future years and any cumulative assessments applicable to the proposals. Where there is a high degree of residual capacity, the network may readily accept and absorb an increase in traffic, and therefore the sensitivity may be low and any subsequent changes may be insignificant.
- 7.5.36. Conversely, where the traffic levels are high compared to the road capacity or there are sensitive receptors within the area, the sensitivity to any change in traffic levels would likely be high.
- 7.5.37. The determination of the magnitude of the effects will be undertaken by reviewing the outline proposals for the Proposed Development, establishing the parameters of the associated traffic that may cause an effect and then quantifying these effects.
- 7.5.38. The significance of the predicted increase in traffic levels caused by the Proposed Development will be assessed against the thresholds defined in the IEMA guidelines.
- 7.5.39. The IEMA Guidelines for the Environmental Assessment of Road Traffic identifies two broad rules-of-thumb which could be used as a screening process to determine the scale and extent of assessment. These rules are summarised as follows:

- Rule 1 – include highway links where traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%).
- Rule 2 – include any other specifically sensitive areas where traffic flows have increased by 10% or more.

7.5.40. Any links within the study area that fall below these thresholds will be scoped out of the assessment, unless specifically requested to be incorporated by key stakeholders or the local Highway Authorities.

7.5.41. The majority of traffic associated with the Proposed Development will occur only during construction/decommissioning and will therefore be temporary, which will also be taken into consideration, as there will likely be a negligible amount associated with the operational phase.

7.5.42. The key sensitive receptors to be considered along each route are as follows:

#### *Route 1*

- Great Casterton Primary School and Great Casterton College users;
- Children, elderly and disabled people of Great Casterton, as well as users of the nearby PRowS;
- Other non-motorised users along the A6121 and surrounding PRowS, including pedestrians, cyclists, equestrians; and
- Residential properties fronting the A6121.

#### *Route 2*

- A1175 (Main Road) Level Crossing;
- Children, elderly and disabled people along the Route, as well as users of the nearby PRowS;
- Non-motorised users along the Route and nearby PRow, including pedestrians, cyclists, equestrians; and
- Residential properties fronting the A6121.

#### *Route 3*

- Children, elderly and disabled people along the Route, as well as users of the nearby PRowS;

- Non-motorised users along the Route and nearby PRow, including pedestrians, cyclists, equestrians; and
- Users of the villages of Toft, Carlby and Essendine; and
- Residential properties fronting the A6121.

7.5.43. The nearby SSSIs and LWSs, are also identified as sensitive receptors applicable to all routes.

### ***Potential Effects***

7.5.44. The potential effects to be assessed during the construction phase of the Proposed Development on those links that exceed the thresholds set out at paragraph 7.5.39 are as follows:

- Severance;
- Driver Delay;
- Pedestrian Delay;
- Pedestrian and Cyclist Amenity;
- Fear and Intimidation;
- Accidents and Road Safety; and
- Hazardous Loads.

7.5.45. **Severance** is defined in the IEMA (formerly the IEA) 1993 guidelines as the “*perceived division that can occur with a community when it becomes separated by a major traffic artery*”. The IEMA guidelines suggest changes in traffic flow or HGV flow by 30%, 60% or 90% can be considered as having a low, medium or high impact respectively on severance.

7.5.46. **Driver Delay** will be determined through the analysis of any junction capacity assessments and or link assessments, contained within the Transport Assessment, which will be measured in terms of change in delay per vehicle (in seconds) from the baseline situation. This criterion is considered to be applicable to all modes of transport using the public highway, namely cars, motorcycles, pedal cycles and buses. The IEMA

guidelines suggest that a change of less than 30 seconds, between 30-60, 60-90 seconds and more than 90 seconds represents a respective negligible, low, medium and high change.

- 7.5.47. In relation to **Pedestrian Delay**, the 1993 IEMA guidance does refer to a lower threshold of 10 seconds delay and upper threshold of 40 seconds delay, which for a link with no crossing facilities equates to a lower threshold of approximately 1,400 vehicles per hour. However, as the links within the study area vary considerably and do include crossings, it is proposed to undertake and utilise professional judgement to assess the impact of the Proposed Development on pedestrian delay, which will be based on the respective changes in traffic flows on each link.
- 7.5.48. The 1993 IEMA guidance states that **Pedestrian and Cycle Amenity** is broadly defined as *“the relative pleasantness of a journey and is considered to be affected by traffic flow, traffic composition and pavement width/separation from traffic”*. The guidance suggests that a tentative threshold for judging the significance of changes in pedestrian and cycle amenity would be where the traffic flow is halved or doubled which would lead to a high impact. A change of less than a quarter would represent a low impact and a change by more than a quarter would represent a medium impact.
- 7.5.49. **Fear and Intimidation** is acknowledged within the 1993 IEMA guidance, stating: *“A further impact that traffic may have on pedestrians is fear and intimidation. The impact of this is dependent on the volume of traffic, its HGV composition, its proximity to people or lack of protection caused by such factors as narrow pavement widths.”* The guidelines state that there are no commonly agreed thresholds for estimating the levels of Fear and Intimidation; however, that a table presenting tentative percentage change thresholds can be utilised. It is proposed to utilise the same thresholds as

within the assessment of Severance, with changes in traffic flow or HGV flow by 30%, 60% or 90% considered as having a low, medium or high impact.

- 7.5.50. A detailed assessment of **Accidents and Safety** will be carried out by examination of road traffic accident data for the most recent five year period available. The 1993 IEMA guidance states that professional judgement should be applied to assess the implications of local circumstances and any existing accident clusters, that could be exacerbated by the Proposed Development.
- 7.5.51. With respect to **Hazardous and Dangerous Loads**, the 1993 IEMA guidance states that the assessment should “*include a risk or catastrophe analysis to illustrate the potential for an accident to happen and the likely effect of such an event.*” The guidance references any highway features that would pose a risk to any loads being transported, above the typical levels of risk that would generally be expected by utilising the highway network.

### ***Mitigation***

- 7.5.52. In relation to mitigation, at this stage it is considered that this will primarily be through the development and implementation of an oCTMP, that will detail suitable mitigation measures to help reduce the impacts of construction.
- 7.5.53. The ability to predict traffic data / flows for a decommissioning phase is very unpredictable, therefore a DTMP will be prepared and agreed with stakeholders prior to the commencement of decommissioning to assess, and where necessary mitigate, the impacts of the decommissioning phase.
- 7.5.54. The local highway authority and other key local stakeholders will be involved in the development of the mitigation documents, with consultation

taking place on any measures that are proposed to be implemented to mitigate any potential effects.

### ***Issues Proposed to be Scoped Out***

#### Alternative Modes of Construction Access

- 7.5.55. Due to the financial viability implications of implementing alternative modes of transport to the Site for construction materials, such as a new means of rail access, at this stage this is considered to be unfeasible. As such, only access by road for construction vehicles will be considered within the EIA.

#### Hazardous or Dangerous Loads

- 7.5.56. With respect to hazardous and dangerous loads, analysis of the road network within the study area indicates that there are no particular features, such as significant vertical drops immediately beyond the carriageway, which would suggest that the transfer of materials poses a particular risk beyond that which would be expected on the general highway network. It is therefore proposed to scope an assessment of hazardous and dangerous loads out of the assessment. The oCEMP and/or oCTMP will explain the measures employed to ensure safe vehicular transport of components such as panels and batteries to and from the solar PV Site.

#### Operational Phase

- 7.5.57. During the operational phase of the Proposed Development, it is envisaged that the volume of traffic associated with the operational scheme would be so low as to be considered negligible, with only occasional visits needing to be made to the Site for routine maintenance and servicing purposes.
- 7.5.58. The vehicles used for these visits are likely to be a four wheel drive off-road car, a van for monitoring and maintenance checks or there may on occasion



the need for a HGV to access the Site to deliver replacement parts. However, this would be on an ad-hoc basis and would not be required every day.

- 7.5.59. As a result, it is considered that the significance of the environmental effects of the operational phase of the Proposed Development would be negligible with respect to access and highways and therefore a detailed assessment of the operational phase of the Proposed Development is proposed to be scoped out of the EIA.

#### Decommissioning

- 7.5.60. With respect to a decommissioning phase, it is anticipated to be either the same or less intensive than the construction phase, with the peak in construction phase activity likely to result in the greatest impact on the surrounding transport network. Due to the uncertainty of timescales for decommissioning, as well as uncertainties in engineering techniques at that time, it is not considered possible to generate future baseline traffic flows that would be representative of future conditions.
- 7.5.61. Therefore, it is assumed the effect of the decommissioning phase is less significant than the construction phase and will therefore not be required to be assessed, as the construction assessment already presents a more robust, worst-case assessment. Nonetheless, mitigation for a decommissioning phase will be provided in the form of a DTMP.

#### **Consultation**

- 7.5.62. As part of the Stage 1 Consultation relating to access and Highways, the following consultation has initially been undertaken:
- Lincolnshire County Council (LCC): The Traffic Survey Specification Technical Note was issued to LCC on the 12th of October 2021, which was followed by an initial scoping meeting that took place on the 15th of

October 2021. LCC requested further details of the predicted levels of traffic to be generated, once these details are available.

- Rutland County Council (RCC): The Traffic Survey Specification Technical Note was issued to RCC on the 12th of October 2021, with an initial response received via email on 19th October 2021. RCC requested further details of the predicted levels of traffic to be generated, once these details are available.
- National Highways (NH): The Traffic Survey Specification Technical Note was issued to NH on the 12th of October 2021, with a response received via email on 28th October 2021. It is noted that NH acknowledged that the baseline 2021 ATC surveys undertaken complied with the DfT TAG UNIT M1.2 requirements

7.5.63. Additional consultation will be undertaken with the key stakeholders noted above once further details are available on the construction, operational and decommissioning requirements of the Proposed Development, which will be agreed prior to the submission of the application. This will likely also include, but not be limited to, other neighbouring authorities including Peterborough City Council (PCC) and Northamptonshire County Council (NCC).

## 7.6. Noise and Vibration

### *Introduction*

7.6.1. This section of the Scoping Report sets out the approach to the Noise and Vibration Assessment and sets out a summary of the baseline surveys undertaken to date, extent of the study area and key reference documents that would inform the assessment of potential noise and vibration impacts. During construction and decommissioning, noise and vibration could arise from both onsite activities, such as the construction of onsite access tracks, solar panels and the substation and associated infrastructure. The

movement of construction traffic, both onsite and travelling on public roads, to and from the Site also represents a potential source for consideration.

- 7.6.2. During the operation of the Proposed Development, the main potential source of noise would be associated with electrical and mechanical plant, both the equipment located within the individual solar arrays and that proposed at the substation area. Operation of the Proposed Development will also require light vehicle traffic for maintenance purposes and ad-hoc deliveries by a HGV.

### ***Baseline Conditions***

- 7.6.3. Following desktop review, the Site is in a rural area of generally low population density, except for individual settlement such as Essendine and Carlby to the north and Ryhall to the south. Potential noise-sensitive dwellings are located within these settlements or as more isolated properties or farms. The nearest identified noise-sensitive receptors to the Proposed Development (and approximate distances from the Site Boundary) are summarised below:

- Properties in towns and settlements closest to the Site: Essendine, Aunby, Carlby, Ryhall (including Ryhall Farm/Grange & Cottage), Belmesthorpe (including Wood Farm/Cottages and Folly Farm), Braceborough (including Braceborough Grange/Lodge and Grange Farm Cottage) and Uffington (including Grange Farm);
- Farms between Aunby and Clay Hill (Lodge Farm, Barbers Mill House, Heath Farm/House/Cottage & Vale Farm);
- Properties along the A6121 (Essendine, Stamford and Bourne Road);
- Farms near railway tracks (Banthorpe & Glen Lodges and North Lodge Farm); and
- Park Farm.

- 7.6.4. The location of the properties identified in relation to the solar PV Site boundary are illustrated in Appendix 7.4.

- 7.6.5. For properties located along the A6121 or in more populated settlements, traffic noise will influence the noise environment. Noise from trains using the East Coast Mainline will also be audible when passing, although this will generally be for short, intermittent periods. Locally, noise from commercial sources will be an influence in areas such as the business area located south of Essendine. In other cases, the background noise environment will be influenced by natural sources such as wind-disturbed vegetation and birds as well as localised activities such as farming operations.
- 7.6.6. A baseline noise survey, in line with British Standard (BS) 4142 (see below) has been undertaken in January 2022 to characterise the noise environment in further detail in consultation with the local planning authorities as detailed below.

### ***Assessment Methodology***

#### Legislation, Policy and Guidance

- 7.6.7. The Environmental Protection Act 1990 (Her Majesty's Stationery Office, HMSO, 1990) defines the powers for local authorities to investigate and control statutory nuisance from noise. Local authorities also have powers under the Control of Pollution Act 1974 (HMSO, 1974) to control noise and vibration from construction activities. Notwithstanding these powers, the aim of the planning system is to minimise and control where required construction and operational noise levels from
- 7.6.8. The Overarching National Policy Statement for Energy (EN-1) (2011) and 2021 Draft EN-1 both recognises that noise and vibration from energy development can have impacts on the quality of human life as well as on wildlife in some cases. These documents outline general principles for the control and management of these impacts and relevant factors and standards to consider but do not provide specific guidance.

- 7.6.9. The 2021 Draft National Policy Statement for Renewable Energy Infrastructure (EN-3) specifically considers solar photovoltaic generation and includes construction (including traffic and transport noise and vibration) as a specific factor to consider. The accompanying text does not however identify specific impacts related to noise (aside from the volume of traffic potentially associated with construction activities).
- 7.6.10. The Noise Policy Statement for England (NPSE), published by the Department for Environment, Food and Rural Affairs (Defra) (2010) and National Planning Policy Framework (NPPF) (2021) include general planning guidance on noise and introduces the principles of adverse noise effects (which should be mitigated and reduced to a minimum) and significant adverse noise effects (which should be avoided). The NPPF also notes that tranquil areas which have remained relatively undisturbed by noise and which are prized for their recreational and amenity value should be identified and protected.
- 7.6.11. The online National Planning Practice Guidance (NPPG) (Department for Communities and Local Government, 2014, updated 2019) (now the Department for Levelling Up, Housing and Communities) provides more detailed information on the relevance of noise to the planning process and on defining effect thresholds, although these are not precisely defined and need to be considered on a case-by-case basis.
- 7.6.12. Professional Practice Guidance on Planning and Noise (ProPG) published by the Association of Noise Consultants, Institute of Acoustics, Chartered Institute of Environmental Health (2017) provides practitioners guidance on a recommended approach to the management of noise in the context of the planning system. Although the guidance is focussed on new residential

development, it encourages good acoustic design processes and highlights the importance of considering noise as an early part of development design.

- 7.6.13. Several local policies highlight the need for considering sources of pollution (including noise) from local developments, and minimise or avoid significant impacts in this regard: Policy SD1 (The Principles of Sustainable Development) and DE1 (Promoting Good Quality Design) and ENV4 (Pollution Control) of the SKDC Local Plan 2011-2036; and Policy CS19 (Promoting Good design) of the RCC Adopted Local Plan (2011).
- 7.6.14. Other policies specifically consider low-carbon/renewable energy generation sources and the need for these developments to consider effects on residential amenity including noise: Solar Energy Criterion 5 in Appendix 3 of the SKDC Local Plan 2011-2036 (Renewable Energy Appendix); and Policy CS20 (Energy efficiency and low carbon energy generation) in the RCC Adopted Local Plan (2011).
- 7.6.15. British Standard (BS) 5228 Parts 1 and 2 'Code of practice for noise and vibration control on construction and open sites' (British Standards Institution (BSI), 2009, amended 2014) provide guidance on a range of considerations relating to construction noise and vibration including general control measures, estimating likely levels and example criteria.
- 7.6.16. The Design Manual for Roads and Bridges (DMRB, Highways England, 2019) provides a methodology for assessing the impacts of noise and vibration associated with road traffic, both on a long- and short-term basis.
- 7.6.17. BS 4142 'Methods for Rating and Assessing Industrial and Commercial Sound' (BSI, 2014, amended 2019) provides an objective method for rating the likelihood of complaint from industrial and commercial operations. It also describes the means of determining noise levels from fixed plant installations and determining the background noise levels that prevail on a



site. Current Government advice to local planning authorities in England refers to BS 4142 as being the appropriate guidance for assessing commercial operations and fixed building services plant noise. The standard also provides guidance on undertaking baseline noise surveys including consideration of suitable equipment, weather condition and other factors such that this survey can be representative of the noise climate generally experienced by the residential receptors considered.

- 7.6.18. Operational noise and its propagation will be modelled using the standard methodology set out in International Organisation for Standardisation (ISO) 9613-2 'Acoustics - Attenuation of sound during propagation outdoors - Part 2: General method of calculation' (1996).
- 7.6.19. In summary, potentially significant effects during construction, operation and decommissioning of the Proposed Development can be assessed using relevant guidance in British Standards and other guidance documents, minimised and controlled using different mitigation measures, where relevant.

#### Study Area

- 7.6.20. The assessment will consider noise sensitive residential locations in the vicinity of the Site, which are considered highly sensitive to noise. Commercial and industrial receptors are considered to have a low or negligible sensitivity to noise and will therefore require less detailed assessment. Dwellings located along the construction traffic route are also considered.
- 7.6.21. The assessment will focus on the nearest residential receptors to the Site, within a region of approximately 250m from the boundary of the potential solar development areas. This is because operational noise emissions from solar developments are generally limited and, based on experience of

similar recent developments, significant impacts are unlikely beyond this distance. Similarly, construction noise impacts will be localised given the temporary nature of these activities as discussed below. Operational noise emissions from the proposed substation area could be relatively higher and the nearest properties to this area, within a radius of around 800m, will also be considered.

#### Desk and Field Survey Methods

- 7.6.22. A desktop review has been undertaken using available mapping and address data of the potential noise-sensitive receptors in the study area.
- 7.6.23. A noise survey of the baseline noise conditions has been undertaken at locations representative of the noise-sensitive receptors identified, to characterise both ambient and background noise levels. This was achieved using unmanned noise loggers at fixed locations for a period of at least 48 hours, supplemented by additional attended 15 minute short-sample measurements to cover a wider area. The survey analysis will be undertaken in accordance with the guidance of BS 4142. Appendix 7.4 presents a plan of the survey locations which has been the basis for consultation with the relevant location authorities (see below). The results of the noise surveys will be included within the ES.
- 7.6.24. The Covid-19 pandemic is still ongoing and this could affect the baseline measurements in particular through reduced road traffic levels (and therefore noise levels) associated with restrictions in place. This will be reviewed as one of the variability factors to consider in line with guidance in BS 4142. Based on the current situation and the nature of the area, the effect on the baseline noise environment is likely to be minimal, and only likely to reduce baseline noise levels: this will provide a more stringent assessment in any case.

### Overview of Assessment of Significance

- 7.6.25. As noted above, residential receptors are considered highly sensitive, whilst commercial and industrial receptors are considered to have a low or negligible sensitivity to noise respectively.
- 7.6.26. The magnitude of impact will be defined on the basis of the principles set out in the NPSE and NPPG guidance: this will be determined using thresholds of Lowest Observed Adverse Effect Level (LOAEL) and Significant Observed Adverse Effect Level (SOAEL). These thresholds will be based on the above-referenced guidance documents.
- 7.6.27. The sensitivity of the receptor and the magnitude of impact will both be used to determine the overall significance of effect, following the general approach described in Section 0 above. Moderate or major levels of effect are considered to be significant within the meaning of the EIA Regulations and mitigation will be considered. Minor or negligible effects are not considered significant, but enhancement measures will be considered to minimise the effects, where possible.

### ***Potential Effects***

#### Construction Noise and Vibration

- 7.6.28. In assessing the impacts of construction phase noise and vibration, it is accepted that the associated works are of a temporary nature. Assessment of the temporary impacts of construction is primarily aimed at understanding the need for dedicated management measures, such as those to be set out within a CEMP, and, if so, the types of measures that are required.
- 7.6.29. In this instance, the nature of most works to construct and if required decommission the Proposed Development is such that activities will generally be limited both in intensity and/or duration, such that significant

effects from the associated noise and vibration are considered unlikely based on relevant guidance and experience of similar activities. However, some activities such as piling or horizontal drilling, which may be used if deemed necessary, have the potential to cause significant effects either because of an increased intensity for the former or due to potential extended hours of operation for the latter.

- 7.6.30. The potential noise impacts associated with potentially significant construction activities will be predicted by referencing typical activity emission levels and likely variations in noise levels at surrounding receiver locations, using the methodology set out in BS 5228 Part 1. This standard also provides guidance on assessing the resulting noise levels based on a range of considerations including the absolute level of the noise.
- 7.6.31. Some construction activities, such as piling operations, drilling or vibratory rolling techniques, can generate vibration levels in close proximity to their use (less than 50m typically); however, if used as part of the construction of the Proposed Development this would likely be for limited periods such that significant levels are unlikely. This will, however, be reviewed as part of the assessment. BS 5228 Part 2 provides guidance on estimating vibration levels associated with these activities and threshold values associated with potential disturbance as well as building damage (which only occurs at higher exposure levels).
- 7.6.32. If considered necessary, suitable mitigation and management measures can be secured in the oCEMP.
- 7.6.33. The potential effects of noise levels associated with some construction activities on sensitive ecological receptors will also be considered where relevant in consultation with the relevant specialist (see Section 7.4: Ecology and Biodiversity).

### Operational Noise

- 7.6.34. The potential for operational noise effects would be associated with electrical and mechanical plant associated with the Proposed Development. Whilst noise produced by the solar arrays themselves is expected to be minimal, large electrical plant such as transformers, batteries and inverters can generate noise which is typically tonal in nature, making it potentially more noticeable. The proposed primary substation area will include larger electrical plant (also tonal in nature and with higher noise emissions) as well as ancillary cooling units which will also require particular consideration.
- 7.6.35. There is a potential for adverse impacts to be created if some of these plant items are not suitably located or designed. Potential noise levels will be predicted on the basis of representative noise data for the plant units potentially installed, on a worst-case basis. The model will be developed using the ISO 9613-2 methodology based on the noise specification data, indicative layout information and experience of similar recent installations. These predicted levels will be assessed relative to the existing baseline background noise levels at the relevant receptors, accounting for the potential character of the noise, in accordance with BS 4142. The greater the difference between predicted operational noise levels and baseline levels, the greater the impact (after also accounting for a number of contextual factors). If noise specifications for a particular type of plant is not available, suitable noise criteria for operational noise limits will be set based on baseline noise measurements, with noise from installed equipment controlled by planning condition.
- 7.6.36. Primary mitigation will first involve adjusting the design of the Proposed Development to maximise (where possible) the distance from areas including noise-generating plant from noise-sensitive receptors. The detailed design of the Proposed Development, including final plant locations

and selections, can be controlled through a requirement of the DCO that would establish suitable noise limits at the boundary of the Site.

### ***Issues Proposed to be Scoped Out***

#### Construction Traffic Noise and Vibration

- 7.6.37. The intensity of traffic associated with the construction, particularly heavy goods vehicles (HGVs) which are most likely to generate adverse noise impacts, would be relatively limited. For roads that already include moderate to high traffic levels, the potential for noticeable or significant noise effects due to changes in traffic flow associated with the construction or decommissioning would require large increases of 30% or more in the baseline traffic levels (overall or HGV only), which is considered unlikely for most A or B roads. This is based on guidance from the Institute of Environmental Assessment (1993). For unclassified roads that currently include more limited levels of traffic, although a traffic increase due to construction may be noticeable it would be associated with low absolute noise levels such that their temporary impact is also unlikely to be significant. Noise impacts from construction traffic is therefore scoped out of the EIA.
- 7.6.38. Occasional momentary vibration can arise when HGVs pass dwellings at very short separation distances, but this is already the case from existing HGV traffic and is not sufficient to constitute a risk of significant effects in this instance and therefore vibration effects from construction traffic is scoped out of the EIA.

#### Decommissioning Noise and Vibration

- 7.6.39. The works involved for a decommissioning phase would be similar or of a lower magnitude/duration than for the construction phase, and therefore have similar/lower effects and subject to similar management or control procedures, and therefore do not require explicit consideration. On this



basis decommissioning noise and vibration impacts are scoped out of the EIA.

#### Operational Traffic Noise and Vibration

- 7.6.40. Vehicular movements during the operational phase of the Proposed Development, related to routine servicing and maintenance, would be very limited and unlikely to be associated with any significant noise effects. Operational traffic noise and vibration impacts are therefore scoped out of the EIA.

#### Operational Noise & Vibration

- 7.6.41. Based on experience of similar recent installations, the plant likely to be used at the Site, when operational, would generate insignificant levels of vibration at the boundary of the Site. Therefore, operational vibration impacts are scoped out of the EIA.
- 7.6.42. Operational noise and vibration levels are of such magnitude that they are unlikely to affect ecological receptors, and this is also scoped out of the EIA.

#### ***Consultation***

- 7.6.43. The baseline noise method and proposed survey measurement locations have been discussed with the Environmental Health Departments of LCC, SKDC and RCC. Letters setting out the methodology and proposed survey locations have been issued to the relevant representatives for discussion. The assessment methodology, in particular with regards to operational noise impacts, will also be discussed with the aforementioned councils.

## **7.7. Water Resources and Ground Conditions**

### ***Introduction***

- 7.7.1. This section of the Scoping Report outlines the baseline conditions at the Site and the proposed methodologies for assessing the potential effects of the Proposed Development on the water resources and ground conditions during the construction, operational and decommissioning phases to be set out in the ES.

### ***Baseline Conditions***

- 7.7.2. A desk-based survey was undertaken in December 2021 to understand the baseline conditions for water resources and ground conditions at the Site.
- 7.7.3. The Site consists predominantly of agricultural fields (greenfield) with isolated areas of woodland across the Site. Several manmade field drains exist onsite.
- 7.7.4. The majority of the Site is located within an area classed as having a low risk of flooding (Flood Zone 1) as defined by the Environment Agency, with a minor corridor in the central area of the Site, being classed as medium (Flood Zone 2) and high risk (Flood Zone 3).
- 7.7.5. An initial baseline study shows that elements of the Proposed Development north of Essendine village and south of Wood Farm lie within groundwater Source Protection Zones (SPZ) 1 and 2 and outwith of the River Welland catchment Surface Water Safeguard Zone.
- 7.7.6. The Site comprises an area within a designated 'high' Impact Risk Zone associated with the SSSI at Ryhall Pasture and Little Warren Verges adjacent to the north-western extent of the Site, which indicates any developments within this area, excluding householder applications, have the potential to impact upon the SSSI. There are no designated Special

Protection Areas (SPA) and Local Nature Reserves (LNR) within 5km of the Site.

- 7.7.7. No historic or active landfill sites exist within the Site boundary as identified in Defra's Historic Landfill Site mapping (2021).
- 7.7.8. A contaminated land assessment undertaken by Argyll Environmental (2021) has been conducted for land at Manor Farm as provided at Appendix 7.5, located within the Site boundary at NGR N 503520, E 312970 (Field 8, indicated on Figure 2.2). Historic mapping within 100m of the land at Manor Farm was reviewed as part of the assessment, with the following potentially contaminated land uses identified within the proximity of Manor Farm;
- Farm yard and associated agricultural buildings adjacent north-west and north-east;
  - Quarries 10m north;
  - Old gravel / sand pits 15m north-east;
  - Railway adjacent to the east;
  - Works with an associated tank 70m south-east; and
  - Filling station 80m south-east.
- 7.7.9. The historic mapping reviewed as part of the Manor Farm contaminated land assessment indicates the following recorded landfills within the proximity of Manor Farm:
- A landfill site 15m north operated by SKDC which accepted commercial and household waste from 1946 to 1972;
  - A landfill site 14m north which accepted household waste from 1965 to 1975;
  - An active Control of Major Accident Hazards (COMAH) site 122m east;
  - An inactive Notification of Installations Handling Hazardous Substances (NIAHH) designated site 200m east; and
  - A Planning Hazards Substance Consents site 171m east.

- 7.7.10. The contaminated land assessment undertaken by Argyll Environmental (2021) has been conducted for land at Wood Farm as provided at Appendix 7.5, located approximately 250m west of the Site at its closest point at NGR N 309610, E 505755 (land south of Field 48 and west of Field 50, as indicated on Figure 2.2). Historic mapping within 100m of the land at Wood Farm was reviewed as part of the assessment, with the following potentially contaminated land uses identified within the proximity of Wood Farm;
- A series of 3 gravel pits at Wood Farm operational from c. 1887 to 2021;
  - Railways adjacent north-east;
  - Worked grounds 70m north from c. 1888 to 1892; and
  - A gravel pit adjacent south operational from 1930 to 1958.
- 7.7.11. The historic mapping reviewed as part of the Wood Farm contaminated land assessment indicates the following recorded landfills within the proximity of Wood Farm:
- A historical landfill accepting household waste located at Wood Farm; and
  - A Local Authority recorded landfill site accepting dry domestic and construction waste operational until 1979.
- 7.7.12. A Site walkover will be undertaken to verify the location and nature of watercourses and waterbodies within the study area likely to be affected by the Proposed Development. The Site walkover will augment the desk study where necessary by recording the presence of additional hydrological features or the absence of features. The source of public and private water supplies will be visited and will inform the overall risk assessment which will be reported in the ES.
- 7.7.13. Infiltration testing will be conducted at the Site in early 2022. The infiltration testing will comprise of test pits which will be utilised for testing to Building

Research Establishment (BRE) 365 (2016) standard in order to confirm the permeability of the underlying soils and suitability for infiltration drainage.

### ***Assessment Methodology***

- 7.7.14. The proposed hydrological and hydrogeological impact assessment methodology for of the Proposed Development has been developed in consultation with the Environment Agency and other statutory consultees over a number of years.. The assessment will be based on a source-pathway-receptor methodology, where the sensitivity of the receptors and the magnitude of potential change (impact) upon those receptors is identified within the study area.
- 7.7.15. Acknowledging the potentially contaminated land and historic and active landfill uses surrounding the Site, a Conceptual Site Model will be developed to assess the potential contaminated ground effects as part of the assessment of contaminated land at and surrounding the Site.
- 7.7.16. An outline Excavated Materials Management Plan will be prepared and incorporated into the oCEMP. It is anticipated that regulatory guidance as well as industry best practice measures, which will be set out in the outline Excavated Materials Management Plan and the oCEMP, along with the environmental design measures described in Table 3.1.
- 7.7.17. A Flood Risk Assessment (FRA) compliant with the requirements of the NPS and NPPF will be undertaken to assess any flood risk.
- 7.7.18. The assessment will be undertaken in line with the Overarching NPS EN-1 (DECC, 2011) and Draft NPS EN-1 (BEIS, 2021). Section 4.8 'Climate change adaption' of the NPS EN-1 (DECC, 2011), sets out how applicants and the IPC should take effects of climate change into account when developing and consenting infrastructure, recognising that the UK will likely experience, *inter alia*, increased flooding and intense rainfall events, as well

as rising sea levels. Paragraph 5.7.3 of the NPS EN-1 sets out the minimum requirements for Flood Risk Assessments (FRAs) which should be scoped in consultation with the Environment Agency, and where relevant, other bodies such as Internal Drainage Boards, to identify information that will be required by the IPC to reach a decision on the application. Section 4.10 of the NPS EN-1 and Draft NPS EN-1 set out the requirements for pollution control and other environmental regulatory regimes.

7.7.19. Draft NPS EN-3 (BEIS, 2021) outlines the requirements for an FRA and the promotion of the use of sustainable drainage systems (SuDS). Section 2.49 of the Draft NPS EN-3 sets out that developers will consider several factors when considering the layout and design of solar development, including the ability to mitigate impacts from flood risk. Paragraph 4.25.15 of the Draft NPS EN-3 also states that the IPC should take into account whether the proposals give rise to any risk of soil contamination. The assessment will be also undertaken in line with the following policy and guidance:

- Water Framework Directive (2000/60/EC). The Water Framework Directive (WFD) establishes a framework for the protection, improvement and sustainable use of all water environments;
- NPPF (2021), paragraphs 159 to 169. This states that for development comprising one hectare or above, the vulnerability to flooding, or the potential to add to flooding elsewhere should be assessed in a Flood Risk Assessment (FRA);
- Safeguarding our Soils: A Strategy for England, published by Defra in 2011. This states that:
  - Agricultural soils will be better managed and threats to them will be addressed;
  - Soils will play a greater role in the fight against climate change and in helping Defra to manage its impacts;
  - Soils in urban areas will be valued during development, and construction practices will ensure vital soil functions can be maintained; and



- Pollution of soils will be prevented, and an historic legacy of contaminated land is being dealt with.
- Natural England Technical Information Note 101 (TIN101) 'Solar Parks: maximising environmental benefits' (2011) provides guidance relating to solar parks, their siting, their potential impacts and mitigation requirements for the safeguarding of the natural environment;
- The Land Drainage Act 1991. Provides a set of administrative structures to ensure that drainage of low-lying land could be managed effectively;
- The Environmental Protection Act 1990. Makes provisions for the improved control of pollution arising from certain industrial and other processes, relating to waste and the collection and disposal of waste;
- Joint Lincolnshire Flood Risk and Water Management Strategy 2019-2050;
- Rutland County Council Core Strategy Development Plan Document (2011) Policy CS1 – Sustainable development principles and Policy CS19 – Promoting good design;
- The Construction Industry Research and Information Association (CIRIA) Environmental Good Practice on Site (C741) (2015). C741 provides guidance on how to avoid causing environmental damage when on a construction site; and
- CIRIA Control of Water Pollution from Construction Sites (C532) (2001). C532 provides guidance on how to plan and manage construction projects in order to control water pollution.

### Study Area

7.7.20. Hydrology and geology data will be obtained, including data relating to the following processes and parameters:

- Downstream hydrological processes;
- Aquifer classification and vulnerability;
- Surface water quality;
- Public and private water supplies;
- Flooding; and

- Contaminated land.

- 7.7.21. The baseline data will be used to assess the potential effects of the Proposed Development on hydrological and hydrogeological resources within a 5km study area. This study area is based on the hydrological and hydrogeological connectivity of water bodies located downstream of the Proposed Development. At distances greater than 5km it is considered that solar developments in low lying catchments are unlikely to have any chemical or sedimentation effects because of the attenuation and dilution of potentially polluting chemicals and sediments. This hydrological and hydrogeological study area will also be used for the cumulative assessment.
- 7.7.22. A smaller 1km study area based upon the solar PV Site will be applied to assess Private Water Supply abstractions.

#### Overview of Assessment of Significance

- 7.7.23. The sensitivity of a receptor or its surroundings to the effects of the Proposed Development is a description of the degree to which the key attributes of a receptor can be affected by a given level of change. A high sensitivity receptor will be affected more than those of a low sensitivity receptor.
- 7.7.24. Sensitivity can be classified as High, Moderate or Low. These classifications are dependent upon factors such as the quality and quantity of water within the receptor, their purpose (e.g. whether used for drinking, fisheries, etc.) and existing influences, such as land-use. These criteria are outlined in Table 1 of Appendix 7.6 and are based on professional judgement and experience.
- 7.7.25. The magnitude of change is determined by the timing, scale, size and duration of the potential impact resulting from the Proposed Development.

- 7.7.26. The magnitude of potential impacts can be classified as Major, Moderate, Minor or Negligible, as set out in Table 2 of Appendix 7.6.
- 7.7.27. The significance of the potential effects of the Proposed Development will be classified by taking into account the sensitivity of receptors and the magnitude of the potential effect on them. The significance of the unmitigated effect is as defined in Table 3 of Appendix 7.6.
- 7.7.28. As sections of the Site are located within Flood Zone 3a, the FRA will need to demonstrate that the Proposed Development passes the Exception and Sequential tests outlined in the NPS and NPPF. There will be a requirement to raise all electronically sensitive equipment at least 600mm above the highest modelled flood level for the 1 in 100-year (+climate change) event, or have a commitment to install flood resilient measures onsite infrastructure. The climate change allowance data will be obtained from the Environment Agency Climate Change Allowances for Peak River Flow in England (2021) for the appropriate catchment and basin. The Environment Agency's climate change data is based upon UKCP18 with different epochs or periods of time reflecting the emissions scenarios within UKCP18.
- 7.7.29. The FRA will be produced and will focus on the following elements:
- The risk of flooding at the Site from fluvial and groundwater sources;
  - Assessment of the introduction of new hardstanding areas on the greenfield run-off rates, using Micro Drainage software;
  - Storage requirement calculations to accommodate the 30-year and 100-year storm events, based on modelling provided by the Environment Agency and will include an allowance for climate change; and
  - Calculating the sizing of storage tanks and Sustainable Drainage Systems (SuDS) required to accommodate an increase in surface water run-off.

7.7.30. The FRA will also conclude whether the Proposed Development complies with Section 5.7 of the NPS EN-1, local planning policy and the relevant local Strategic Flood Risk Assessment (SFRA) .

### ***Potential Effects***

7.7.31. It is anticipated that the key issues to be addressed in the Water Resources and Ground Conditions chapter of the ES, are likely to include the following elements:

#### Construction Effects

- Potential impediments to drainage ditch flow as a result of crossings;
- Potential transfer of sediment to surface water resources during construction; and
- Potential transfer of chemicals to surface water resources during construction.

#### Operational Effects

- Increase in surface water run-off from areas of hardstanding;
- Effects from flooding i.e. ensuring the Proposed Development is safe from water ingress for its lifetime in the event of flooding, without increasing flood risk elsewhere;
- Potential impediments to drainage ditch flow as a result of crossings;
- Potential transfer of sediment to surface water resources during operation;
- Potential transfer of pollutants from fire suppression; and
- Potential effects on public water supply (PWS).

7.7.32. A WFD screening assessment will be carried out to identify the potential need for a standalone WFD assessment and will form part of the ES.

7.7.33. An assessment of the potential effects of the Proposed Development on receptors relating to the River Basin Management Plan WFD will be detailed

within the Water Resources and Ground Conditions Chapter of the ES. This assessment will take full cognisance of PINS' Advice Note Eighteen: The WFD and assess the impact of the Proposed Development on chemical pollution, surface hydrology, groundwater, soils and bedrock.

- 7.7.34. Embedded mitigation measures will be outlined within the Water Resources and Ground Conditions chapter of the ES and within a Draft Water and Construction Management Plan (WCMP), as part of the wider oCEMP. The Draft WCMP will comprise good practice construction methods and works that are established and effective measures to which the Applicant will be committed throughout the development process and which can be secured by Requirements of the DCO.
- 7.7.35. There is sufficient confidence in the effectiveness of the measures that will be set out in the Draft WCMP for them to be treated as part of the Proposed Development for the purposes of the assessment. Accordingly, the assessment of significance of effects of the Proposed Development will be considered following implementation of the measures in the Draft WCMP.
- 7.7.36. The measures to be included in the Draft WCMP are inherently part of the Proposed Development design and should be treated as embedded (primary) mitigation.
- 7.7.37. The Water Resources and Ground Conditions chapter of the ES will consider the likelihood of an event occurring and concludes whether the residual or overall significance will be Major, Moderate, Minor or Negligible, before appropriate mitigation (beyond that specified in the Draft WCMP) has been implemented. This assessment will rely on professional judgment to ensure that the effects are appropriately assessed.

7.7.38. A residual effect is considered to be a likely significant effect in accordance with EIA Regulations if assessed as Moderate or Major following the implementation of necessary mitigation measures.

#### ***Issues Proposed to be Scoped Out***

7.7.39. The following impacts are proposed to be scoped out of the EIA due to the establishment of onsite vegetation cover, which will reduce sediment mobilisation and occasional maintenance visits limiting the presence of chemicals / oil onsite:

- Potential transfer of sediment to surface water resources during operation; and
- Potential transfer of chemicals to surface water resources during operation.

#### ***Consultation***

7.7.40. Consultation has been undertaken with the following stakeholders to agree the approach to assessment for Water Resources and Ground Conditions:

- Environment Agency;
- Anglian Water;
- LCC;
- RCC; and
- Natural England.

### **7.8. Agricultural Land Use**

#### ***Introduction***

7.8.1. This section of the Scoping Report sets out the approach to the Agricultural Land Use and Farm Business Assessment and provides a summary of the desk top information available, extent of the study area and key reference



documents that would inform the assessment of potential impacts on land quality, soil resource and farm businesses.

### ***Baseline Conditions***

- 7.8.2. Agricultural land is graded according to its inherent limitations for agricultural use. Grade 1 is classed as excellent quality and Grade 5 is classed as very poor quality. Grade 3 is divided into subgrades 3a 'good' and 3b 'moderate' quality agricultural land. Grades 1, 2 and 3a are defined as the 'best and most versatile' (BMV) in the NPPF (2021).
- 7.8.3. The solar PV Site is shown on the published "provisional" Agricultural Land Classification (ALC) maps, published in the 1970's and updated in 2011 by Natural England, as a mixture of mostly undifferentiated Grade 3, with some Grade 2 to the east of Belmesthorpe. The ALC maps do not differentiate Grade 3 into Subgrades 3a and 3b.
- 7.8.4. Natural England published predictive likelihood of BMV in 2017. The area is shown on the predictive maps as mostly in the 'low likelihood of BMV (<20% area BMV)', with land south of the Belmesthorpe to Greatford Road falling into a mixture of 'moderate likelihood (20-60% area BMV)' and 'high likelihood (>60% area BMV)'.
- 7.8.5. In order to inform the assessment an Agricultural Land Classification survey will be undertaken at the Site. Given the size of the Site the survey will be carried out at a semi-detailed scale. This will involve in the order of 210 auger locations on a regular 200 metre grid across the solar PV Site. If there are areas where the soils are particularly variable, additional auger locations may be studied in that localised area.
- 7.8.6. The Site comprises land within the ownership of five farm businesses; therefore, the farming circumstances of the individual farm businesses

involved and sensitive neighbouring farming enterprises will be investigated via interview and survey, as appropriate.

### **Assessment Methodology**

- 7.8.7. Paragraph 5.10.8 of NPS EN-1 states that *“Applicants should seek to minimise impacts on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land in areas of poorer quality (grades 3b, 4 and 5) except where this would be inconsistent with other sustainability considerations. Applicants should also identify any effects and seek to minimise impacts on soil quality taking into account any mitigation measures proposed”* (DECC, 2011).
- 7.8.8. NPS EN-3 (DECC, 2011), although does not contain specific policy related to solar development, sets out criteria for good design for energy infrastructure, recognising that construction methods should minimise soil disturbance.
- 7.8.9. Section 2.48 of the Draft NPS EN-3 (BEIS, 2021) outlines that the key considerations involved in siting of a solar farm are likely to be influenced by, *inter alia*, ALC and land type. Paragraph 2.48.13 states that solar is a *“highly flexible technology and as such can be deployed on a wide variety of land types.”* *Where possible, ground mounted Solar PV projects should utilise previously developed land, brownfield land, contaminated land, industrial land, or agricultural land preferably of classification 3b, 4, and 5 (avoiding the use of “Best and Most Versatile” cropland where possible).* *However, land type should not be a predominating factor in determining the suitability of the site location.”*
- 7.8.10. Draft NPS EN-3 goes on to state that soil surveys may also inform the suitable beneficial use of the land during the operation of solar development

(Paragraph 2.48.14). Additionally, it explains that whilst development of ground mounted solar arrays is not prohibited on sites of agricultural land classified 1, 2 and 3a, it is recognised that applicant's development may use some agricultural land and applicants should explain their choice of site, noting preference for development to be on brownfield and non-agricultural land (Paragraph 2.48.15).

- 7.8.11. Paragraph 2.50.3 of the Draft NPS EN-3 states that where solar developments require soil stripping, soil handling may be informed by ALC soil survey, with detailed guidance available such as Defra's 'Construction Code of Practice for the Sustainable Use of Soils on Construction Sites' (2009) or any subsequent updates.
- 7.8.12. The assessment will consider the agricultural land quality of the solar PV Site, and the extent to which the Proposed Development will affect the inherent land quality. It will consider the method of construction and decommissioning and the impact this would have on soil qualities. It will consider the potential for removal of the panels and therefore the reversibility of the impact, and it will consider the extent to which agricultural use can continue during the life of the Proposed Development.
- 7.8.13. The potential loss of agricultural land will be considered by reference to the policy in the National Policy Statements, NPPF (2021), The Town and Country Planning (Development Management Procedure) (England) Order 2015, National Planning Practice Guidance (NPPG) and relevant local planning policy. Soil handling and mitigation will have regard to the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (2009) which has been retained for reference on [www.gov.uk](http://www.gov.uk).

### Study Area

- 7.8.14. The study area is the solar PV Site boundary plus, if relevant, adjoining agricultural land if that might be affected (e.g. it forms part of an affected farm business).

### Overview of Assessment of Significance

- 7.8.15. Land of BMV quality is considered to be a receptor of high sensitivity. Whilst Natural England estimate that such land accounts for 42% of farmland in England, such that this is not a rare resource, it is nevertheless identified as a resource worthy of protection. Land of Subgrade 3b and Grades 4 and 5 are considered to be a resource of moderate/medium sensitivity.
- 7.8.16. Full-time farm businesses are considered to be a resource of moderate/medium sensitivity. Farms can normally adapt to change brought about by a raft of different factors, and accordingly are not highly sensitive to change. Part-time farm businesses are considered to be of low sensitivity.
- 7.8.17. In terms of magnitude of impacts, the loss of more than 50ha of BMV land is considered to be a large/major magnitude, losses of 20-50ha are of moderate/medium magnitude and losses of less than 20ha to be of low magnitude. These thresholds are based on established practice. The 20ha threshold is the trigger point for consultation with Natural England on losses of BMV agricultural land.

### ***Potential Effects***

- 7.8.18. The Proposed Development has the potential to affect the agricultural land quality and use of the solar PV Site. The construction process is generally considered unlikely to significantly affect the agricultural land quality or the

soil resource; however, there is the potential for localised impacts if construction incorrectly. Such impacts would be mitigated by careful construction methodologies, including the decommissioning stage, and by ongoing management during the operational stage. There may be benefits from reduced intensity of agricultural use of the soils, and these will be considered and assessed within the ES.

- 7.8.19. The Proposed Development has the potential for adverse economic impacts, a result of reduced agricultural income for the businesses affected during the operational stage. This could be mitigated by alternative incomes received and this will be considered and assessed within the ES.

#### ***Issues Proposed to be Scoped Out***

- 7.8.20. No issues are proposed to be scoped out of the EIA.

#### ***Consultation***

- 7.8.21. It is intended to consult with the landowners and Natural England as part of the EIA process.

### **7.9. Glint and Glare**

#### ***Introduction***

- 7.9.1. This section of the Scoping Report sets out the approach to the Glint and Glare Assessment, setting out the extent of the study area and key reference documents that would inform the assessment of potential impacts on nearby receptors.
- 7.9.2. Solar panels are designed to absorb as much of the sunlight that illuminates them as possible. Notwithstanding this, a proportion of the incoming sunlight is reflected by the solar panels. These reflections are often referred to in

more technical terms as “glint”, which is a momentary flash of bright light, and “glare”, which is a continuous source of bright light.

- 7.9.3. Reflected sunlight from solar panels can, under certain circumstances, be directed towards a location that will make it noticeable to an observer. This effect can be a nuisance, e.g. if it is experienced within a residential dwelling, or a safety hazard, e.g. if it presents a distraction to the driver of motor vehicle on a busy road.
- 7.9.4. Glint and glare effects associated with the Proposed Development will therefore be the subject of an impact assessment to quantify the potential impacts and mitigate them, where necessary.

#### ***Baseline Conditions***

- 7.9.5. The proposed solar panels will be located in areas that are currently open fields / arable land. There are currently no significant reflectors in situ within most or all of the Site. However, the reflective characteristics of modern solar panels are similar to commonly encountered sources within an outdoor environment including still water, greenhouses and windows on buildings.
- 7.9.6. Receptors include main roads in the vicinity of the solar panel areas (such as the A621 and the B1176), dwellings within 1km of the solar panel areas, including the areas of Essendine and Ryhall, the East Coast Mainline which dissects the Site between Careby and Tallington, and aviation receptors at RAF Wittering, which is located approximately 4.5km south of the Site.



### **Assessment Methodology**

7.9.7. Glint and glare impact assessments are common requirements for large-scale solar developments. The importance of this topic is referenced within:

- The Draft National Policy Statement (NPS) for Renewable Energy Infrastructure (EN-3) – published by the Department for Business, Energy & Industrial Strategy (BEIS) in September 2021.

7.9.8. Extracts from this publication are presented below:

- *“Utility-scale solar farms are large sites that may have a significant zone of visual influence. The two main impact issues that determine distances to sensitive receptors are therefore likely to be visual amenity and glint and glare [Section 2.48.4].*
- *In some instances, it may be necessary to seek a glint and glare assessment as part of the application. This may need to account for ‘tracking’ panels if they are proposed as these may cause differential diurnal and/or seasonal impacts [Section 2.52.2].*
- *Applicants should consider using, and in some cases the Secretary of State may require, solar panels to be of a non-glare/ non-reflective type and the front face of the panels to comprise of (or be covered) with a non-reflective coating for the lifetime of the permission [Section 2.52.3].*
- *Solar PV panels are designed to absorb, not reflect, irradiation. However, the Secretary of State should assess the potential impact of glint and glare on nearby homes and motorists [Section 2.52.4].*
- *There is no evidence that glint and glare from solar farms interferes in any way with aviation navigation or pilot and aircraft visibility or safety. Therefore, the Secretary of State is unlikely to have to give any weight to claims of aviation interference as a result of glint and glare from solar farms [Section 2.52.5].”*

7.9.9. There is little else in the way of formal guidance around glint and glare assessments. The impact of any glint and glare effects will be evaluated within a technical assessment. The phases of the assessment and the underlying methodology are set out below. Notwithstanding the reference to glint and glare effects within the draft NPS for Renewable Energy EN-3 referenced above, there remains no formal legislation setting out a required methodology or criteria/standards for classifying impact. This process has

been designed in accordance with industry best-practice and Pager Powers' Glint and Glare guidance (2021).

#### Study Area

7.9.10. The study area is established with reference to the receptor type, specifically:

- Railway receptors within 500m of any panel area will be assessed;
- Dwellings and road users within 1km of any panel area will be assessed; and
- Aviation receptors up to 10km from any panel area will typically be assessed – this is sensitive to some further parameters including the airport size, type and licencing status.

#### Overview of Assessment of Significance

7.9.11. The assessment methodology essentially consists of the following phases.

##### Step 1 – Identification of Receptors

7.9.12. The receptor types to be assessed include the relevant:

- Residential receptor locations;
- Main roads;
- Railway lines and signals; and
- Aviation receptors including pilots on final approach and air traffic controllers.

7.9.13. Receptors will be identified based on their associated study area around the solar panel locations and taken forward for technical modelling if:

- Views of the solar panel area are judged to be a reasonable possibility; and
- Glint and glare effects towards the receptors are geometrically possible - in some cases areas within the study area can be excluded based on panel alignment and the development latitude.

### Step 2 – Technical Modelling

7.9.14. The modelling will take into account:

- The path of the sun throughout the year;
- The configuration and technology type for the solar panels;
- The observer locations; and
- Terrain elevation.

7.9.15. The output of the modelling will quantify the dates and times that reflections could be experienced at the modelled receptor locations, along with the solar panel areas that would cause these reflections.

### Step 3 – Impact Classification

7.9.16. The level of impact at each potentially affected receptor location will be determined based on the modelling output and relevant mitigating factors.

### Step 4 – Identification of Mitigation Requirements

7.9.17. Where applicable, the solar panel areas that could lead to significant impacts under baseline conditions will be identified to inform the mitigation strategy.

### **Potential Effects**

7.9.18. Potential effects are classified based on duration, location, relative to an observer's field of view and intensity as appropriate. Effect significance is evaluated differently for different observer types, specifically:

- For road users and train drivers, the most important factors are:
  - Whether reflecting panels would be visible;
  - Whether reflections would occur within a road user's / train driver's primary field of view relative to the direction of travel;
  - The separation distance between the reflecting area and the observer; and

- The position of the sun when reflections occur.
- For observers within dwellings, the most important factors are:
  - Whether reflecting panels would be visible;
  - The effect duration;
  - The separation distance between the reflecting area and the observer; and
  - The position of the sun when reflections occur.
- For pilots of aircraft on final approach, the most important factors are:
  - Whether reflections would occur within a pilot's primary field of view relative to the aircraft heading;
  - The reflection intensity; and
  - The time that reflections are predicted in the context of the aerodrome's operational hours.
- For air traffic controllers, the most important factors are:
  - Whether reflecting panels would be visible;
  - The effect duration;
  - The location of the reflectors relative to the runway end;
  - The separation distance between the reflecting area and the observer; and
  - The time that reflections are predicted in the context of the aerodrome's operational hours.

7.9.19. The list above is not exhaustive but covers the main considerations.

Mitigation measures for significant effects will depend on the technical report findings but may include:

- Provision of screening, often in the form of planting;
- Changes to the panel configuration;
- Changes to the panel area; and/or
- Use of anti-reflective coating.

### ***Issues Proposed to be Scoped Out***

- 7.9.20. Effects during decommissioning have been scoped out. Effects during construction and decommissioning will be similar in nature to those during operation but generally of lesser significance because a subset of the reflecting panels will be in place. Since significant effects will be mitigated ahead of operation, this mitigation will be in place during the decommissioning phase.
- 7.9.21. The technical analysis may identify some or all observer types as being unaffected or not significantly affected.

### ***Consultation***

- 7.9.22. Consultation is likely to be required with Network Rail, dependent on the proximity of panel areas to the railway line, in order to confirm the details of any infrastructure that they wish to identify ahead of the technical analysis.
- 7.9.23. Consultation with other stakeholders such as aerodrome operators may be recommended if effects are predicted for associated observer types.

## **7.10. Climate Change Impact Assessment**

### ***Introduction***

- 7.10.1. This section of the Scoping Report sets out the approach to the Climate Change Impact Assessment (CCIA) and sets out the methodology to evaluate how the Proposed Development is likely to interact with a changing climate and any associated significant effects. The CCIA will follow IEMA guidance 'IEMA Environmental Impact Assessment Guide to Climate Change Resilience and Adaption' (2015 and 2020 update) and 'Assessing Greenhouse Gas Emissions and Evaluating their Significance' (2017).

- 7.10.2. The following assessment areas are considered in terms of the Proposed Development:
- The vulnerability of the Proposed Development to climate change;
  - The influence of the Proposed Development on climate change; and
  - Changes to the future baseline of other environmental aspects as a result of climate change.
- 7.10.3. The first two points above will be assessed in the CCIA chapter of the ES. The third point will be addressed in the other individual technical topic chapters of the ES, as appropriate.
- 7.10.4. The CCIA chapter of the ES will consider the current electricity generation mix and present the level of CO<sub>2</sub> savings that could potentially be made, depending on the source of electricity generation the Proposed Development is displacing at any given time.

### ***Baseline Conditions***

- 7.10.5. The vulnerability of the Proposed Development to climate change depends on the current and future climatic conditions. The UK Climate Projection Report: The Climate of the UK and Recent Trends, published in 2008, provides observed climate data for UK Regions, with climate data for the geographically appropriate region to be applied relative to the location of the Site.
- 7.10.6. The climate parameters considered relevant to the assessment referenced within the CCIA will be temperature, wind speed, precipitation, storm surges, and cloud amount based on UKCP18 projections. In addition to these, changes in temperature could potentially affect environmental receptors considered elsewhere, although not directly considered to inform assessment within the CCIA. It should be noted that climate change does not necessarily mean warming of the climate at a specific location.



Changes in local climate depend in a complex way on global temperature rise, and in the UK are expected to include a rise in the frequency of more extreme weather events, and average or long-term statistics would not capture this.

7.10.7. The effect of the Proposed Development on climate change will be driven principally through the net change in emissions of greenhouse gases (GHG). The current and future baseline emissions of CO<sub>2</sub> from the generation of electricity by the Proposed Development will be evaluated with reference to the latest version of the Digest of UK Energy Statistics (DUKES) published annually by the Department for Business, Energy and Industrial Strategy (BEIS).

#### ***Assessment Methodology***

7.10.8. The assessment will be undertaken in line with the following policy and guidance:

- The Climate Change Act 2008. The Climate Change Act 2008 outlines the role and need for UK government action related to climate change. A National Adaptation Programme (2013) addressed the main risks and opportunities detailed within the UK Climate Change Risk Assessment for England (2017);
- Carbon Budget Order (2009). The Carbon Budget Order set the first three carbon budgets spanning from 2008 to 2022;
- Carbon Budget Order (2016). The Carbon Budget Order set the carbon budgets for the fifth budgetary period covering 2028 to 2032;
- NPS EN-1 (2011). This NPS outlines details of adaptation to climate impacts, potential effects and benefits, ES requirements, climate projections and the importance of mitigation;
- NPS EN-5 (2021). This NPS details the importance of resilience to climate change and ES requirements associated with climate change resilience.

- NPPF (2021). The NPPF does not make specific reference to the role of the EIA in mitigating and adapting to climate change; however, it does identify the transition to a low carbon future as a core planning principle to help reduce England's carbon emissions;
- IEMA Environmental Impact Assessment Guide to Climate Change Resilience and Adaption (2020). This guidance is an update to the 2017 edition which provides framework for the assessment of climate change within EIA;
- IEMA Assessing Greenhouse Gas Emissions and Evaluating their Significance (2017). This guidance sets out the areas for consideration of GHG within EIA and identifies the key challenges within assessment;
- Planning Practice Guidance, Climate Change (2019). This guidance outlines and advises on the suitable mitigation and adaptation measures to address the impacts of climate change within the planning process.
- Rutland County Council, The Future Rutland Conversation Narrative Summary Report: Climate Change and the Environment (2021);
- Rutland County Council Core Strategy Development Plan (2011). The Development Plan outlines the need for the design of new development incorporates the potential impacts on and of climate change; and
- Rutland County Council Site Allocations and Policies (2014). This document outlines the need for developments to be implemented and located in spaces which contribute to minimising potential impacts of and on climate change.

7.10.9. The vulnerability of the Proposed Development to climate change will be evaluated by analysis of the impact that each type of predicted change in weather conditions could have on the Proposed Development.

7.10.10. The effect of the Proposed Development on climate change will be assessed by evaluation of two quantities. Firstly, the potential emissions associated with the construction and operation of the Proposed Development. This will include the construction process and the manufacture and transportation of the components of the Proposed Development, and the carbon dioxide emissions embodied within them.

This will be evaluated with reference to external, peer-reviewed literature. Secondly, the potential savings in emissions associated with the operation of the Proposed Development, as a result of the consequent reduction in use of more carbon-emitting electricity generation methods. This will be evaluated by estimation of the electricity generation from the Proposed Development, compared to the carbon emissions from the baseline scenario grid-mix of electricity generation.

7.10.11. The assessment of effects of the carbon emissions associated with the Proposed Development on climate change will be estimated through the application of peer reviewed emissions data related to the life cycle of the infrastructure associated with the Proposed Development which incorporates the construction, operational and decommissioning phases as a collective timeframe, rather than as individual phases.

#### Study Area

7.10.12. No study area is defined for the CCIA. For assessment of the vulnerability of the Proposed Development to climate change, the Proposed Development itself is the receptor encompassing the land within the Site boundary and will cover the construction, operation and decommissioning phases of the Proposed Development. For the assessment of the effect of the Proposed Development on climate change, the climate itself is the receptor, with effects evaluated by the direct and indirect GHG emissions of climate-altering gases during the construction, operation and decommissioning phases of the Proposed Development. Neither of these have relevant study areas.

#### Overview of Assessment of Significance

7.10.13. The assessment of significance will follow the general principles set out in Section 6.8 of this Scoping Report. Significant effects will be those that

have a material effect on the functioning of the receptor. These will be described, and any conclusions will be justified, on a case-by-case basis in the assessment reporting. Professional judgement will be applied to ensure consistency with the principles of EIA and other aspects of this EIA.

#### Potential Effects

7.10.14. The potential effects will differ for each section of the CCIA as defined in the three assessment areas set out below:

- The vulnerability of the Proposed Development to climate change;
- The influence of the Proposed Development on climate change; and
- Changes to the future baseline of other environmental aspects as a result of climate change.

7.10.15. The carbon emissions associated with the construction phase of the Proposed Development are proposed to be scoped into the EIA.

7.10.16. Effects on the operational phase from temperature change, sea level rise, changes in precipitation, storm surges and wind speed are proposed to be scoped into the EIA.

7.10.17. The GHG emissions emitted by the Proposed Development will be offset by the production of cleaner energy generate and will be accounted for within GHG emission calculations.

7.10.18. The activity and emission sources for each phase of the Proposed Development are detailed in Appendix 7.7.

#### ***Issues Proposed to be Scoped Out***

7.10.19. The assessment of effects of climate change on the Proposed Development will be limited to changes in weather conditions and the potential effect that might have on solar panels and other proposed infrastructure. Effects on

the construction and decommissioning phases from temperature change, sea level rise, changes in precipitation, storm surges and wind speed are proposed to be scoped out of the EIA. Any indirect effects of climate change, such as political conflicts caused or triggered by climate change leading to changes in the supply chain or changes in the energy market, are also proposed to be scoped out of the EIA for all phases of the Proposed Development.

7.10.20. The assessment of the carbon emissions, from electricity generation, saved as a result of the operation of the Proposed Development will be limited to use of data about the grid-mix of electricity generation available at the time of the assessment. Predictions of future grid-mix carbon emissions in the absence of the Proposed Development will not be made.

### ***Consultation***

7.10.21. There are no organisations with a specific remit to respond to consultation in relation to climate change: however, consultees relevant to the other environmental aspects (e.g. Natural England in relation to ecology and the Environment Agency in relation to flood risk) may respond in relation to the future baseline with climate change for those aspects.

## **7.11. Socio Economics**

### ***Introduction***

7.11.1. The socio-economic assessment will assess the likely effects of the Proposed Development on the baseline conditions within the local and wider areas. The Proposed Development will support direct and indirect employment through the construction and decommissioning phases, as well as ongoing employment associated with the routine monitoring and maintenance of equipment and landscape management once the Proposed Development is operational.

**Baseline Conditions**

- 7.11.2. The Site extends across the Rutland and South Kesteven local authority boundaries. In 2020 Rutland was recorded as having a population of 40,500 people, whilst South Kesteven had 143,200 residents (Office for National Statistics (ONS), 2020). In 2019 South Kesteven (150 people per square km) was ranked at 275th out of 317 England local authority areas for population density, whilst Rutland was ranked at 297th with a density of just 104 persons per km<sup>2</sup>.
- 7.11.3. In 2019, the total Gross Value Added (GVA) output for South Kesteven and Rutland was £2.8 billion and £0.8 billion respectively. The GVA per head estimates for South Kesteven (£19.8k) and Rutland (18.9k) were considerably lower than the UK average of £29.6k (Midlands Engine Observatory, 2021).
- 7.11.4. In 2020, a total of 57,000 jobs were recorded in South Kesteven, whilst Rutland had an estimated 16,000 jobs. Key employment sectors were education, accommodation and food services, retail, health, and manufacturing (see Table 7.4). Note that the areas are also more reliant on agricultural, forestry and fishing employment than England as a whole.

**Table 7.4: Employment Sectors extracted from ONS (2020) Business Register and Employment Survey**

Employment Sectors	Rutland	South Kesteven	England
Agriculture, forestry & fishing	4.4	3.1	1.4
Mining, quarrying & utilities	2.5	1.6	1.1
Manufacturing	9.4	10.5	7.6
Construction	3.1	5.3	4.9
Motor trades	1.6	2.2	1.8
Wholesale	5.0	6.1	3.9
Retail	10.9	10.5	9.3

<b>Employment Sectors</b>	<b>Rutland</b>	<b>South Kesteven</b>	<b>England</b>
Transport & storage	3.8	3.5	5.2
Accommodation & food services	12.5	7.0	7.1
Information & communication	3.1	3.1	4.5
Financial & insurance	0.6	1.1	3.5
Property	1.9	2.6	2.0
Professional, scientific & technical	6.3	7.0	9.1
Business administration & support services	3.1	4.4	8.8
Public administration & defence	5.0	1.8	4.1
Education	14.1	10.5	8.7
Health	9.4	15.8	12.9
Arts, entertainment, recreation & other services	5.6	4.4	4.3

- 7.11.5. In terms of tourism, South Kesteven attracted an estimated 3.38 million visitors in 2018 (Invest SK and SKDC, 2018). These visitors contributed £1.88m of spend to the local economy, which is estimated to have supported 2,700 full time equivalent (FTE) jobs. Major attractions include Burghley House and Stamford.
- 7.11.6. In the same year, Rutland is estimated to have attracted 1.89m visitors (Discover Rutland, 2018). These visitors contributed £135.6m of spend in the local economy, supporting 1,754 FTEs. By far the biggest attraction is Rutland Water, which occupies 1,700ha of land and water in the centre of the county and receives over 1.2m visitors per year.
- 7.11.7. There are no visitor attractions within the Site. In terms of recreation, there are six Public Rights of Way (PRoW) that cross the Site. PRoW footpath BrAW/7/1 routes through the easternmost extent of the Site in a general north-east to south-west alignment. PRoW footpath BrAW/3/1 crosses into the north-eastern extent on the Site in the vicinity of Grange Farm and PRoW footpath BrAW/9/1, which routes parallel to the north of PRoW



footpath BrAW/3/1 crosses the Site east-west into the Open Access Land of Braceborough Wood, which is located immediately adjacent to the north-eastern boundary of the Site. PRow footpath Uffi/5/1 crosses the south-western extent of the Site in an east-west direction. PRow bridleway BrAW/1/1 crosses the eastern extent of the Site north-south, between the local road to the north and the railway line to the south. PRow bridleway E169/1 routes through the north-western extent of the Site between the A6121 and B1176 in a general north-west to south-east alignment.

7.11.8. The Macmillan Way recreational route follows the south-western boundary before crossing the south-central area and continues along the northern boundary of the south-western extent of the Site.

7.11.9. The assessment will consider whether the Proposed Development will affect any PRow for walkers, horse riders and cyclists within or surrounding the Site. A significant effect would be where the Proposed Development would lead to fundamental or material impacts on the receptors or where it would substantially affect recreational resources that have a more than local use or importance.

### ***Assessment Methodology***

7.11.10. The assessment will be undertaken in line with the relevant policy and guidance described below.

7.11.11. Section 4.2 of the Overarching NPS EN-1 (DECC, 2011) and Draft NPS EN-1 (BEIS, 2021) states that the IPC will find it helpful for the applicant to set out the information on the likely social and economic effects of the development and show how any likely significant negative effects would be avoided or mitigated. No reference to socio-economics or employment, relevant to solar development, is made in NPS EN-3 (DECC, 2011) or Draft NPS EN-3 (BEIS, 2021).

- 7.11.12. The Government's Plan to Build Back Better seeks to tackle long-term problems to deliver growth that creates high quality jobs across the UK. It is based around the priorities of levelling up the whole of the UK, supporting our transition to net zero, and supporting the vision for a Global Britain.
- 7.11.13. To achieve Net Zero, the UK will deliver the Ten Point Plan for a Green Industrial Revolution leveraging significant private sector investment and supporting up to 250,000 highly skilled jobs.
- 7.11.14. At a local level, the Greater Lincolnshire Local Enterprise Partnership's Economic Plan for Growth 'Protecting, Progressing, Prospering' sets out an ambition for the area to pioneer industrial decarbonisation, creating a template for other areas. It goes on to highlight a vision for becoming "*a test bed for technologies in clean energy generation, storage and distribution and a leading area in delivering Government objectives against the 10 Point Plan for the Green Industrial Revolution*".

#### Establishing the Baseline

- 7.11.15. The baseline will be developed from a review of relevant planning and economic development strategies and policies and analysis of key socio-economic datasets.
- 7.11.16. Strategies and policies to be reviewed will include Local Plans and relevant Supplementary Planning Guidance (SPGs) as well as the Greater Lincolnshire Local Enterprise Partnership, Local Industrial Strategy and Strategic Economic Plan.
- 7.11.17. The socio-economic profile will be developed from datasets covering the local and local authority level, with benchmarking against the national level where appropriate. The datasets will include:
- 2011 Census Data;

- ONS Population Estimates;
- ONS Annual Population Survey;
- ONS Claimant Count Data; and
- ONS Business Register and Employment Survey.

#### Study Area

7.11.18. The study area for the assessment will be at the local authority level for Rutland and South Kesteven. Wherever relevant, data will also be extracted at a local Lower Super Output Area level applicable to the Site area itself.

#### Assessment of Effects

7.11.19. An assessment will be undertaken to assess the impact of the Proposed Development on the baseline socio-economic conditions, at the construction, operational and decommissioning phases. It will consider the extent to which the impacts in terms of direct and indirect employment and GVA will materialise in:

- The local authority areas of Rutland and South Kesteven in which the Proposed Development is located; and
- At a national level (England).

7.11.20. During the construction phase, the effects will cover:

- Numbers of construction workers involved in the delivery of the Proposed Development;
- Spending associated by the construction workers;
- Generation of employment from construction supply chain effects; and
- Any agricultural worker job losses.

7.11.21. During the operation phase, the effects will cover:

- Number of jobs supported to operate the Proposed Development and maintain the landscape within and around it; and

- Renewable energy and educational resource for the wider community.

7.11.22. When the operation stage ends, the decommissioning of the Proposed Development will generate further direct and indirect socio-economic effects similar to during the construction phase.

***Issue Proposed to be Scoped Out***

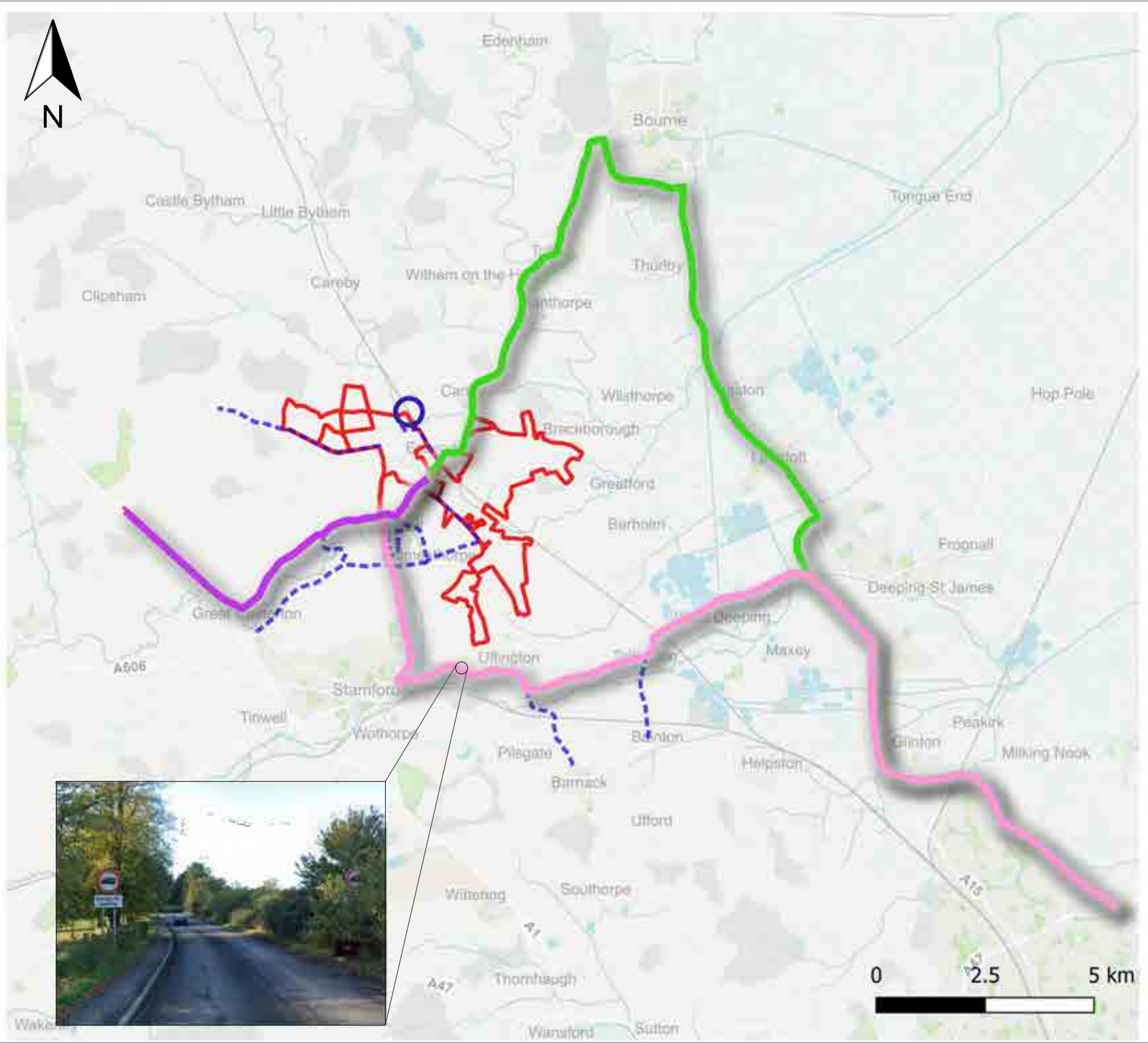
7.11.23. Apart from farmsteads, there are no other businesses operating in within the Site. There are, however, a number of small businesses operating in the settlements close to the Site.

7.11.24. The main publicly accessible tourism assets of the wider area are Stamford, and Burghley House and associated Park and Garden, both of which are situated approximately 2.3km to the south of the Site.







7.11.25. The ZTV submitted with this Scoping Report highlights that the Proposed Development will not be visible from Stamford and other surrounding settlements, whilst only glimpsed, distant views could be possible from the Burghley estate.. As such, it is considered that the effect on the local tourism economy will not be significant and it is therefore proposed that this is scoped out of the EIA.

7.11.26. There are two public rights of way located within the areas identified for potential solar infrastructure on Figure 3.1. These bridleways will be retained within a 30m landscape buffer. There may be a requirement to temporarily divert these bridleways during the construction phase, however this will be kept to a minimum while works within the that part of the Site are being undertaken. The PROWs that cross areas of potential mitigation and enhancement will be retained during the construction, operation and decommissioning phases. Significant impacts on PROW users are therefore not anticipated and are scoped out of the EIA. A Recreation and Amenity

assessment will be undertaken and submitted in support of the DCO Application.



LEGEND

-  Site Boundary
-  Route 1 - via A1
-  Route 2 - via A15 (Stamford)
-  Route 3 - via A15 (Bourne)
-  7.5t Vehicular Restriction
-  Low Bridge (3.9m Restriction)

# LDĀDESIGN

PROJECT TITLE  
MALLARD PASS SOLAR FARM  
EIA SCOPING REPORT

DRAWING TITLE  
Construction Access Routes and Vehicular Restrictions

ISSUED BY	Oxford	T: 01865 887 050
DATE	Jan 22	DRAWN CR
SCALE@A3	As shown	CHECKED MK
STATUS	Final	APPROVED AG

**DWG. NO Figure 7.1**

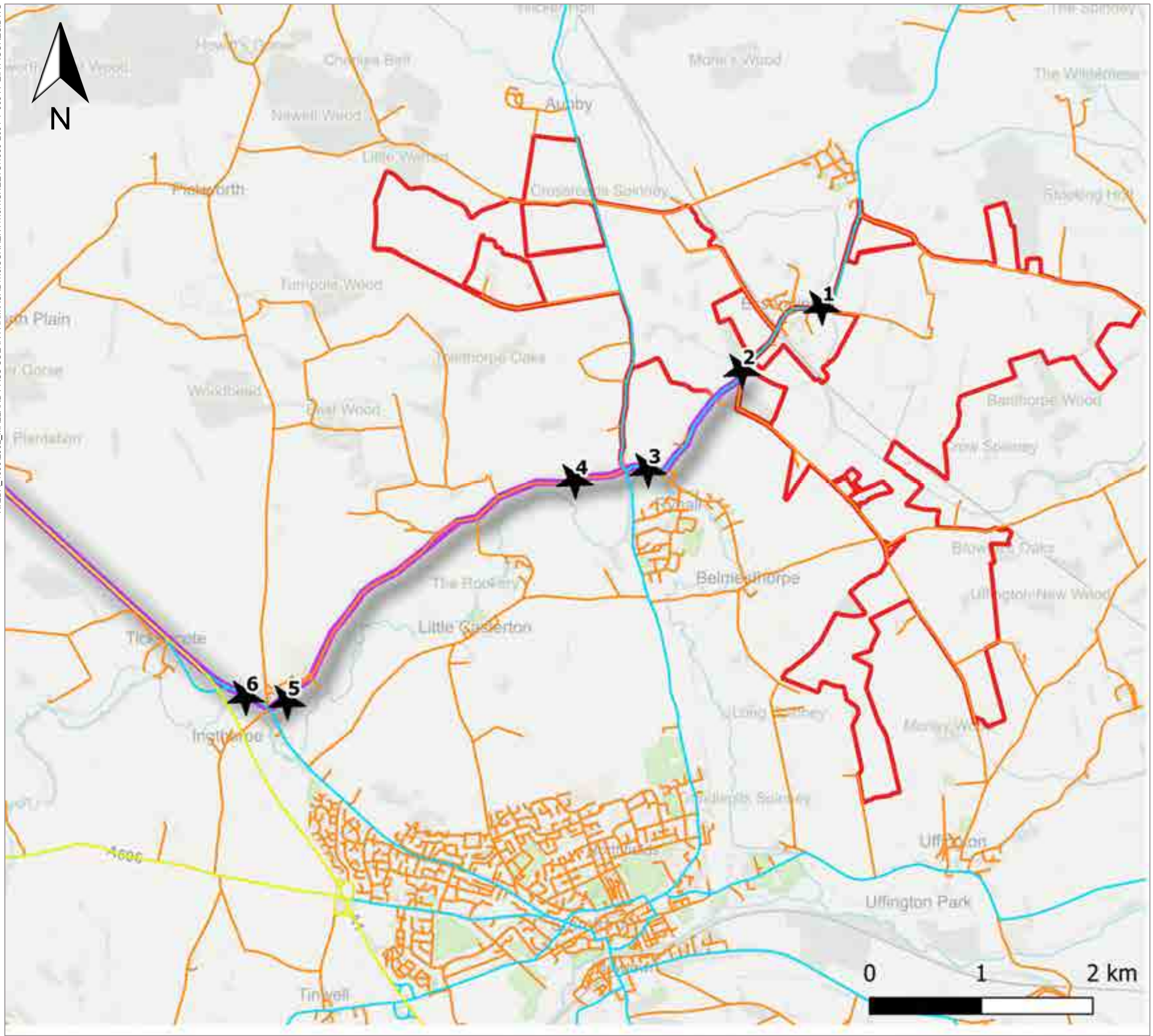
No dimensions are to be scaled from this drawing.  
All dimensions are to be checked on site.  
Area measurements for indicative purposes only.

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Sources Ordnance Survey





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- LEGEND**
- Site Boundary
  - Route 1 - via A1
  - Local Network
  - Regional Road Network
  - National Road Network
  - ★ ATC Location

# LDĀDESIGN

PROJECT TITLE  
**MALLARD PASS SOLAR FARM**  
**EIA SCOPING REPORT**

DRAWING TITLE  
**Route 1 Traffic Data Overview**

ISSUED BY	Oxford	T: 01865 887 050
DATE	Jan 22	DRAWN CR
SCALE@A3	As shown	CHECKED MK
STATUS	Final	APPROVED AG

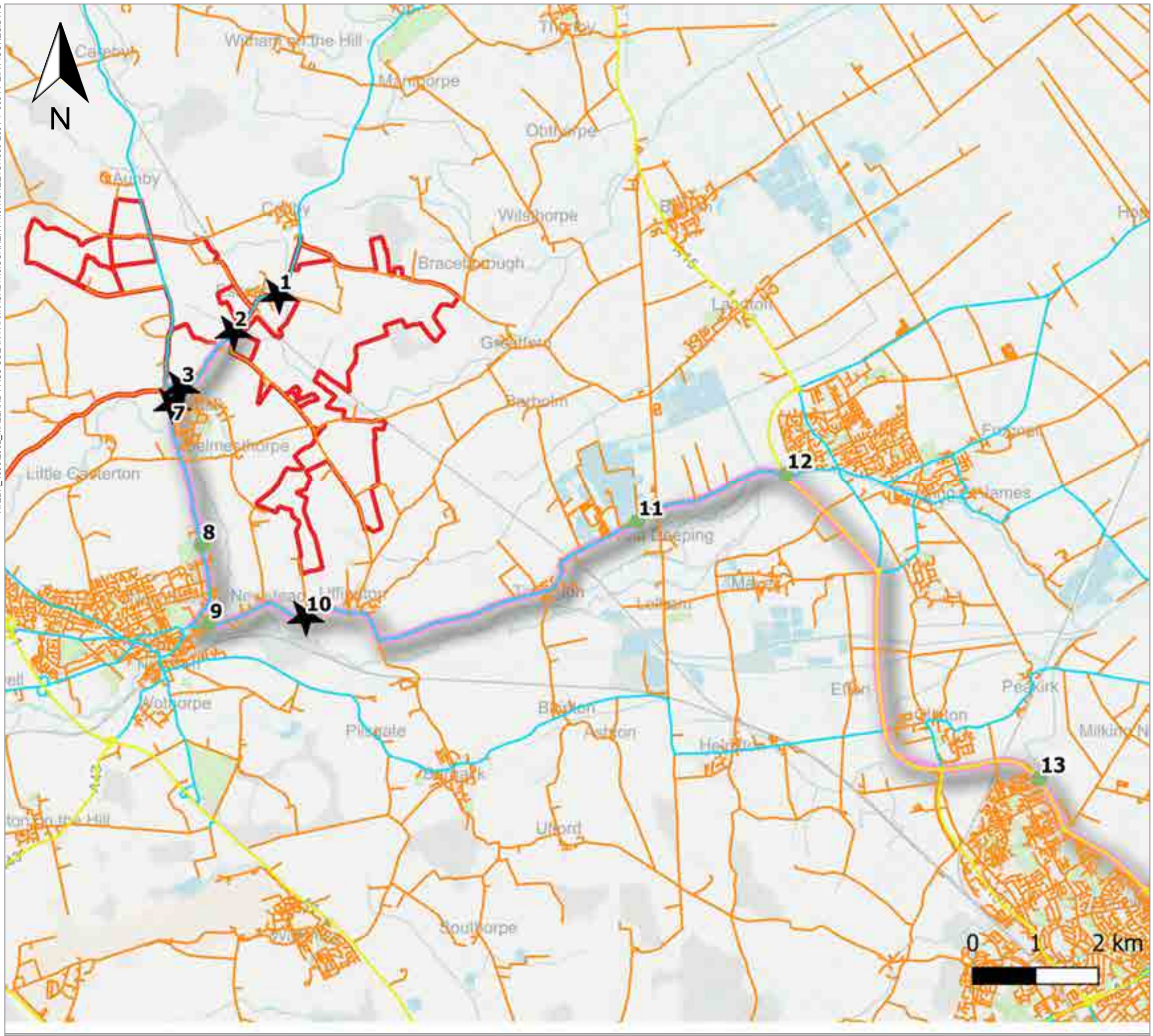
**DWG. NO Figure 7.2**

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- LEGEND**
- Site Boundary
  - Route 2 - via A15 (Stamford)
  - Local Network
  - Regional Road Network
  - National Road Network
  - ★ ATC Location
  - DFT Count Location

# LDĀDESIGN

PROJECT TITLE  
**MALLARD PASS SOLAR FARM**  
**EIA SCOPING REPORT**

DRAWING TITLE  
**Route 2 Traffic Data Overview**

ISSUED BY	Oxford	T: 01865 887 050
DATE	Jan 22	DRAWN CR
SCALE@A3	As shown	CHECKED MK
STATUS	Final	APPROVED AG

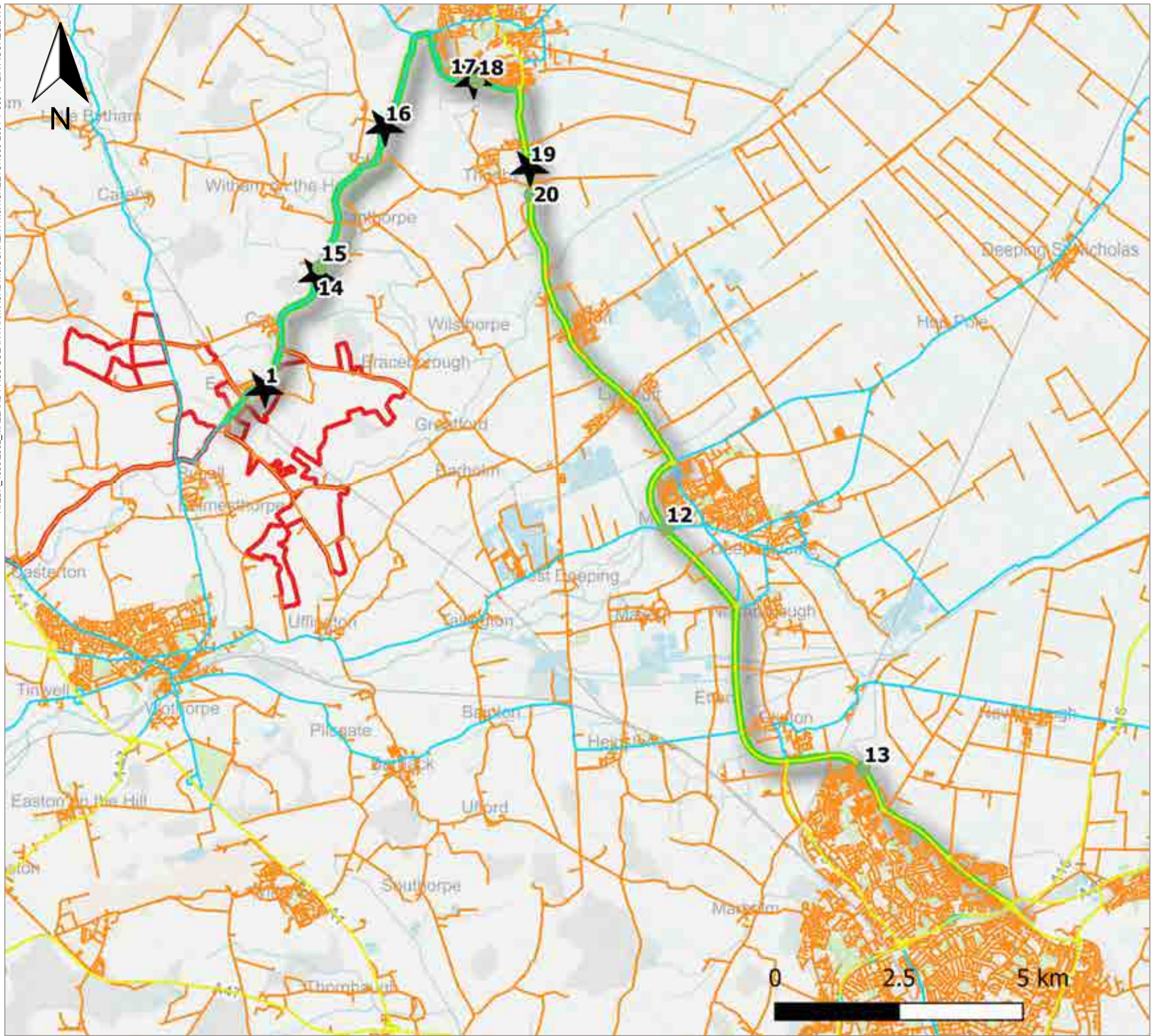
**DWG. NO Figure 7.3**

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LEGEND

- Site Boundary
- Route 3 - via A15 (Bourne)
- Local Network
- Regional Road Network
- National Road Network
- ★ ATC Location
- DFT Count Location

# LDĀDESIGN

PROJECT TITLE  
**MALLARD PASS SOLAR FARM**  
**EIA SCOPING REPORT**

DRAWING TITLE  
**Route 3 Traffic Data Overview**

ISSUED BY	Oxford	T: 01865 887 050
DATE	Jan 22	DRAWN CR
SCALE@A3	As shown	CHECKED MK
STATUS	Final	APPROVED AG

**DWG. NO Figure 7.4**

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## **8.0 Environmental Topics Scoped Out of the EIA**

### **8.1. Cultural Heritage**

#### ***Introduction***

- 8.1.1. Cultural Heritage encompasses buried archaeological remains; historic buildings, structures and monuments; and historic landscapes.
- 8.1.2. The minimal nature of ground disturbing activities associated with the construction and decommissioning of the Proposed Development means that significant effects on the archaeological interest (significance) of any potentially surviving remains onsite is very unlikely.
- 8.1.3. The change of character and land-use of agricultural land parcels, within the setting of historic buildings, structures and monuments, during the operation of the Proposed Development, is not sufficient to cause significant effects to their heritage significance.
- 8.1.4. No important historic character landscape types lie within the Site and thus no significant effects are anticipated on this component of the cultural heritage resource.

#### ***Baseline Conditions***

- 8.1.5. Initial desk-based research has taken place to inform the material presented within this section of the Scoping Report. This exercise reviewed information held on Historic Environment Record (HER), other on-line sources of information regarding designated heritage assets (such as Historic England's Heritage List) which was also supplemented by a site visit undertaken in May 2021.
- 8.1.6. A large study area, 5km wider than the Site, was used to collect HER information. This is more than sufficient, at this stage of the assessment, to characterise the potential for buried archaeological remains. For the

selection of designated heritage assets and their settings that may be subject to change from the Proposed Development, an appropriate study area of 2km was adopted. Due to the nature of the Proposed Development, it can be stated with confidence that assets beyond this distance would not be adversely affected by the Proposed Development. The detailed assessment of this matter will be explored with further Site visits and the use of a ZTV.

- 8.1.7. There are two RPGs within 1km of the Site, comprising the Grade II Greatford Hall (also encompassing a Conservation Area), located approximately 600m east of the solar PV Site, and the Grade II Uffington Park, which is located approximately 650m south of the solar PV Site (numbers 1 and 2, respectively depicted on Plate 3). Several other RPGs lie slightly further afield, including Holywell Hall Park (Grade II) to the north-west; Burghley House (Grade II\*) to the south; and Grimsthorpe Castle (Grade I) to the north.
- 8.1.8. The Grade II\* Listed Church of St Mary lies approximately 50m from the solar PV Site, but closer to 200m away from any Proposed Development. The Church lies within the larger scheduled area of Essendine Castle (numbers 3 and 4, respectively on Plate 3). In the wider landscape there are a collection of listed buildings within the village of Carlby, approximately 1km north of the Site, most noteworthy being the Grade I Church of St Stephen (number 5 on Plate 3). Further collections of listed buildings lie in the villages of Belmesthorpe (number 6 on Plate 3) and Ryhall Conservation Area (number 7 on Plate 3), over 1km to west of the solar PV Site and within Braceborough Conservation Area (number 8 on Plate 3), lying over 500 north-east of the solar PV Site. Banthorpe Lodge (Grade II) lying approximately 250m east of the central extent of the solar PV Site (number

9 on Plate 3) is one of several listed post-medieval farmsteads, agricultural buildings or rural dwellings lying in the wider landscape of the Site.



**Plate 5: Key Designated Heritage Assets**

- 8.1.9. The HER for both Leicestershire and Lincolnshire include details of potential surviving buried archaeological remains within the Site and the wider environs. In the most part, the potential for buried archaeological remains has been identified from cropmarks and soil marks recognised on aerial photographs from the second half of the 20<sup>th</sup> century. These records suggest that remains from most periods of later prehistory to the modern day could survive buried within the Site.
- 8.1.10. Most notably, these comprise features potentially related to late prehistoric land divisions, settlements and funerary remains. Although as yet unrecorded remains of a similar nature could survive within much of the

Site, the focus of these potential remains can be found in the southernmost extent of the Site (field numbers 50, 51 and 52; Figure 2.2); in the northern extent of the Site (west of Essendine, field numbers 7 and 11); and in land parcels in the central part of the Site (north-east of the railway line, field numbers 31, 32 and 35).

- 8.1.11. The potential extent and heritage significance of buried archaeological remains is being investigated by additional desk-based research (including further examination of aerial photographic records) and geophysical survey, which have commenced onsite. Further investigations may also be deployed and are described in further detail below.

### ***Potential Effects***

- 8.1.12. As summarised above, the minimal nature of ground disturbing activities, associated with the construction and decommissioning of the Proposed Development, means that significant effects on buried archaeological remains are not anticipated. This is not to suggest that important buried archaeological remains are not expected to survive within the Site, but that the size and frequency of the driven piles and cable runs for the solar arrays are so slight that even if their location were to coincide exactly with buried remains there would be no material loss of archaeological interest.
- 8.1.13. Furthermore, mitigation through design (avoidance) can allow any especially sensitive buried archaeological remains (such as human remains) to be safeguarded completely from any disturbance. The desk-based assessment and geophysical surveys will aid in the identification of any such locations. Thus, an assessment of buried archaeological remains can be scoped out of the EIA.
- 8.1.14. The Proposed Development would change the character of land parcels lying within the wider and peripheral setting of several listed buildings,



RPGs and scheduled monuments. The historic landscape character of the Site itself has not been recognised as of particular importance. Furthermore, the fundamental agrarian nature of the setting of these designated heritage assets would be unchanged. For all designated heritage assets, it is views towards them that are the critical components of their experience, the vast majority of these being views from up close. The form of the Proposed Development and its distance from these heritage assets means that no views of them would be lost or obscured. As such, key experiences of the buildings will be unaltered.

- 8.1.15. Therefore, any changes to the setting of designated heritage assets is unlikely to result in a significant adverse effect in EIA terms. Thus, an assessment of the effects on the heritage significance of these assets (historic buildings, structures, monuments and the historic landscapes) is scoped out of the EIA.

### ***Approach to Assessment***

- 8.1.16. Despite being scoped out of the EIA process, a detailed and proportionate assessment of the cultural heritage resource will form part of the application for development consent.
- 8.1.17. An assessment of the potential for buried archaeological remains, based on desk-based research and undertaken in accordance with the standard and guidance of the Chartered Institute for Archaeologists (CIfA), will be supported a geophysical survey of the Site. Further investigations, such as a trial trenching, may also be deployed to explore the extent and significance of potential buried archaeological remains.
- 8.1.18. A detailed historic building and historic landscape assessment will also be undertaken. This will comprise a 'settings assessment' of the key designated (and potential undesignated) heritage assets in proximity of the

Site. This will also comprise an assessment of the historic landscape character of the Site.

- 8.1.19. The baseline assessment work described above will culminate in an understanding of the heritage significance of any assets within the Site and environs. An understanding of the Proposed Development (the impact of change to the baseline environment) alongside the understanding of significance and importance will allow for an impact assessment to be undertaken. This will be presented within a Cultural Heritage Impact Assessment report which will be submitted to support the application for development consent. This will include a discussion on any potential cumulative impacts.

### ***Consultation***

- 8.1.20. Initial consultations have been undertaken with stakeholders including Heritage Lincolnshire and Leicestershire County Council alongside interrogation of the HER for Lincolnshire and Leicestershire. To date, this consultation has focused on the scope of the desk-based and field surveys to inform the assessment. Further consultations have been programmed to provide updates from the on-going survey work (geophysical surveys during the early part of 2022). The consultations will also seek to agree the scope of any mitigation (see above).

## **8.2. Air Quality**

### ***Introduction***

- 8.2.1. The proposed method of assessment for identifying likely significant environmental effects from air quality associated with construction, operation and decommissioning phases of the Proposed Development is described in this section of the Scoping Report. Due to the proposed implementation of construction dust mitigation measures through an

oCEMP and with development traffic flows anticipated to be below relevant screening criteria, no significant effects to air quality are expected.

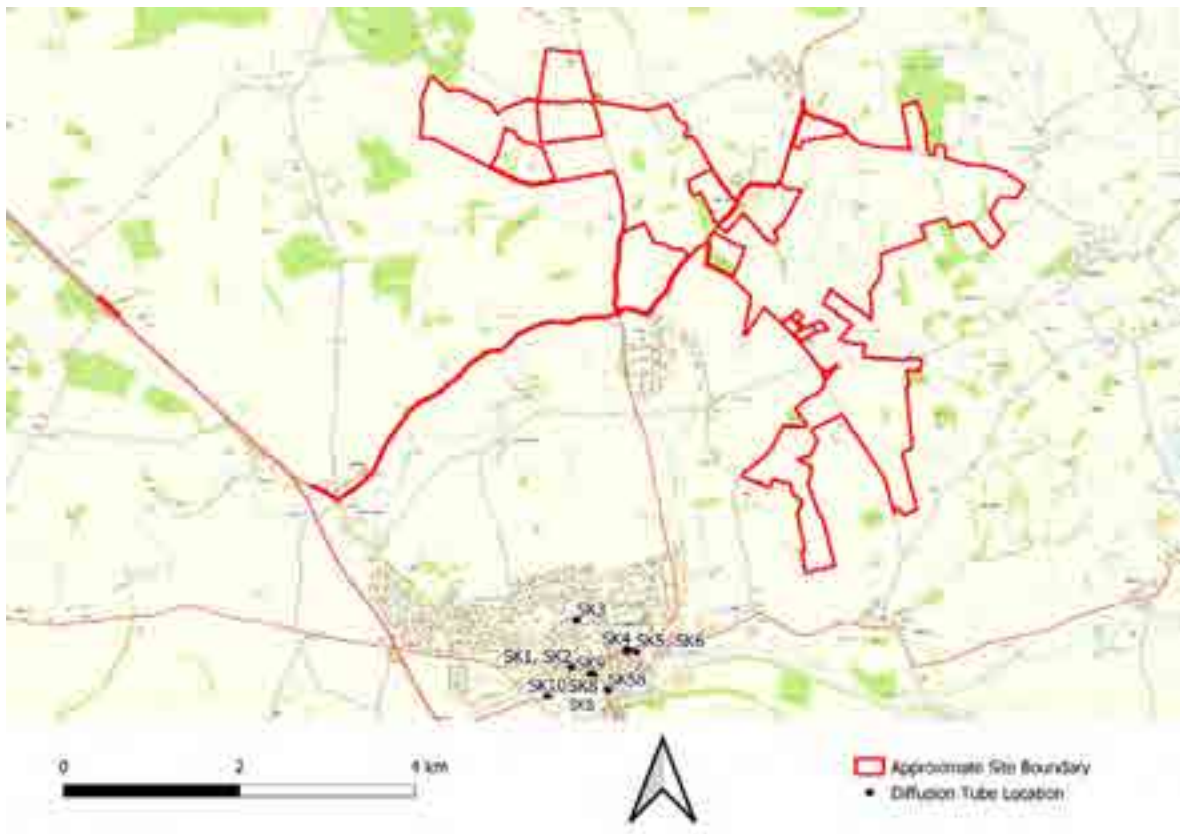
### ***Baseline Conditions***

#### Local Air Quality Monitoring

- 8.2.2. The Site is located approximately 23.1km to the south-east of its nearest AQMA declared for concentrations of nitrogen dioxide (NO<sub>2</sub>). This AQMA is SKDC no.6 AQMA, located in Grantham, and has been declared for exceedances of the annual and 1-hour mean NO<sub>2</sub> air quality objective (AQO). Within an AQMA the screening criterion for possibility of significant impacts to air quality is an increase in 100 light duty vehicles (LDV) or 25 heavy duty vehicles (HDV) in line with Environment Protection UK (EPUK) and Institute of Air Quality Management (IAQM) guidance (2017). Due to the distance and the assumption that traffic associated with the Proposed Development will have dispersed throughout the network over this distance, it is not expected this AQMA will be affected by the Proposed Development.
- 8.2.3. Neither RCC nor SKDC currently undertake any automatic air quality monitoring and therefore no monitoring data is available for particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). RCC utilised 11 diffusion tubes to monitor annual mean NO<sub>2</sub> concentrations across its administrative area in its latest year with available data, 2018, whilst SKDC utilised 58 diffusion tubes during 2020, the most recent year with available data. There are no diffusion tubes located in the immediate vicinity of the Site; however, one RCC and 11 SKDC diffusion tubes are located between approximately 2km and 3.5km from the Site. Table 8.1 provides the latest annual mean NO<sub>2</sub> concentrations at the nearest diffusion tube locations to the Site for the

years 2015 to 2020. The locations of the diffusion tubes are illustrated in Plate 4.

- 8.2.4. The pollutant concentrations recorded at the diffusion tubes in 2020 are not considered to be representative of "normal" air quality conditions. Whilst it is expected that as a result of the COVID-19 pandemic behaviours will change in the future, the impact of this on long-term air quality is currently unknown and therefore 2020 data has been included for information only and not used to determine baseline air quality in the vicinity of the Proposed Development.



**Plate 6: RCC and SKDC diffusion tube locations in the vicinity of the Site. Contains OS Data © Crown Copyright and Database rights 2022**

**Table 8.1: Annual Mean NO<sub>2</sub> Diffusion Tube Data**

Diffusion Tube ID	Diffusion Tube Name	Site Type	Distance from Site	2015	2016	2017	2018	2019	2020
4 (RCC)	Tickencote	Rural	4.9	14.1	17.7	12.8	18.5	-	-
SK1/ SK2 (SKDC)	Scotgate	Roadside	2.9	35.7	36.7	32.7	30.7	28.4	21.4
SK3 (SKDC)	Essex Road	Roadside	2.7	15.1	16.3	16.0	13.8	13.1	9.5
SK4 (SKDC)	Opp Stam' Sch	Roadside	2.2	35.9	36.6	33.4	29.9	30.3	21.3
SK5/ SK6 (SKDC)	East St	Roadside	2.1	34.1	37.8	32.8	31.1	30.1	23.5
SK7 (SKDC)	Stam' School	Roadside	2.2	34.1	38.8	38.8	32.7	32.8	25.5
SK8 (SKDC)	London Inn	Roadside	2.7	25.9	27.8	25.0	25.7	22.5	15.8
SK9 (SKDC)	All Saints Rd	Roadside	2.7	27.7	26.4	26.7	25.0	23.9	17.9
SK10 (SKDC)	Avondale	Roadside	3.2	15.3	19.9	22.0	20.2	18.3	14.7
SK58 (SKDC)	Wharf Rd Stamford	Roadside	2.6	-	-	33.1	31.1	24.6	19.3

8.2.5. There have been no exceedances of the annual mean NO<sub>2</sub> objective of 40 µg/m<sup>3</sup> at any of the diffusion tubes located nearest to the Site in the years between 2015 and 2019 with available monitoring data recorded. The location with the highest concentration in 2019 was SK7 (Stam' School), located on the A6121 East Street in Stamford, monitoring 32.8 µg/m<sup>3</sup> or 82% of the annual mean objective. As such it is considered likely that no

exceedances of the annual mean objective will be experienced in the vicinity the Site.

- 8.2.6. The 1-hour mean AQO for NO<sub>2</sub> is 200 µg/m<sup>3</sup> and should not be exceeded more than 18 times within a year. In line with Local Air Quality Management Technical Guidance (LAQM.TG(16)), exceedance of the 1-hour mean NO<sub>2</sub> objective are unlikely to occur where the annual mean concentration is below 60 µg/m<sup>3</sup>. Concentrations at nearby diffusion tubes shown in Table 8.1 therefore shows that the 1-hour mean NO<sub>2</sub> objective is unlikely to be exceeded at these locations.

#### Defra Predicted Concentrations

- 8.2.7. Defra background concentrations have been obtained from the national maps published by Defra. These estimated concentrations are produced on a 1 km by 1km grid basis for the whole of the UK. The Site falls into multiple grid squares, grid square X 505500 Y 312500 has been used to provide an indication of background concentrations in the vicinity of the Site. Predicted concentrations for this grid square for NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> are provided in Table 8.2 **Error! Reference source not found.** for the current year, 2022.

**Table 8.2: Estimated Annual Mean Background Concentrations in 2022 in µg/m<sup>3</sup>**

Year	Background (µg/m <sup>3</sup> )		
	NO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
2022	7.1	15.3	8.6

It can be seen that the modelled background concentrations are well below the relevant annual mean objective levels for NO<sub>2</sub>, PM<sub>10</sub> (40 µg/m<sup>3</sup>) and PM<sub>2.5</sub> (25 µg/m<sup>3</sup>) in 2022.



### ***Potential Effects***

8.2.8. The following aspects are proposed to be scoped out of the EIA:

- Impacts to air quality at sensitive human and ecological receptors due to fugitive dust emission during the construction phase are expected to be adequately managed through mitigation measures. A construction dust risk assessment will be undertaken to inform appropriate mitigation and appended to the oCEMP which will be submitted with the DCO application;
- It is not expected that construction traffic flows will exceed the screening criterion for either sensitive human (>500 light duty vehicles (LDV) and/ or >100 heavy duty vehicles (HDV) (two-way)) or ecological receptors (>1000 LDV and/ or >200 HDV), therefore the effects of traffic emissions will be non-significant and are scoped out of the EIA;
- Impacts to air quality at sensitive human and ecological receptors from non-road mobile machinery (NRMM) as emissions of NO<sub>x</sub> and PM<sub>10</sub> will be required to adhere to emissions standards, therefore the effects of construction plant on local air quality would be non-significant and are scoped out of the EIA; and
- Impacts to air quality at sensitive human and ecological receptors from the operational phase of the Proposed Development are not anticipated to be significant as traffic flows are expected to be minimal and no combustion plant will be present onsite and therefore are scoped out of the EIA.

8.2.9. On this basis, it is not expected that a specific air quality chapter will be required in the ES.

### ***Approach to Assessment***

8.2.10. The works being undertaken during the construction phase include earthworks, construction and trackout. It is anticipated that dust and particulate matter emissions produced during construction phase activities would be controlled through the implementation of a CEMP. An oCEMP will be submitted with the application which will include measures required to address impacts from dust during construction.

### ***Consultation***

- 8.2.11. Contact has been made with the Environmental Health Officer at RCC and SKDC to agree the approach to considering air quality.

## **8.3. Arboriculture**

### ***Introduction***

- 8.3.1. The purpose of the arboricultural assessment is to identify the individual and massing of trees located within the influencing distance of the Site. The Arboricultural Impact Assessment (AIA) considers the scale, condition and safe useful life expectancy of trees in their current setting, and then determines the likely impacts of the Proposed Development including such matters as necessary tree removals, surgery and predictable future maintenance programmes. The AIA will be prepared alongside the design team to ensure arboricultural impacts are minimised, and tree protection measures maximised to secure their unharmed retention during the construction, operation and decommissioning periods of the Proposed Development. As such a separate chapter on Arboriculture within the ES is not considered to be required.

### ***Baseline Conditions***

- 8.3.2. No baseline surveys have yet been undertaken. A detailed onsite inspection whereby the trees will be quantified in terms of age, size, condition and longevity will be undertaken following the completion of the topographical survey.
- 8.3.3. A visual assessment of the Site, completed prior to a fully detailed AIA, indicates that as the Site is primarily agricultural land, the majority of trees are clustered around the Site boundaries or are hedgerow specimens.

There are a limited number of field trees and some larger blocks of woodland plantations across the Site.

### ***Potential Effects***

8.3.4. The primary impacts on trees are liable to occur from the following requirements for the Proposed Development:

- Permanent access routes;
- Temporary construction phase access routes;
- Permanent parking facilities;
- Temporary construction phase parking facilities;
- Temporary Site buildings and compounds;
- Area directly affected by construction works (above and below ground);
- Installation of Services;
- Storage of materials;
- Car parking; and
- Future maintenance requirements.

8.3.5. These matters will be addressed primarily at the design stage which will filter out clear conflicts between trees of aesthetic quality, good condition and longevity by identifying potential issues at the earliest opportunity. As mentioned at Paragraphs 3.2.1 – 3.2.2 of this Scoping Report, the existing hedgerows, woodland, ditches, ponds and field margins will be retained within the layout of the solar arrays, with the exception of small breaks and/or crossings required for new access tracks, security fencing and cable routes. Table 3.1 sets out the minimum offsets/buffers from the solar arrays which will be incorporated within the design of the Proposed Development. The buffers/offsets are a minimum and may be increased to deliver further

mitigation or enhancements and/or respond to root protection areas where required.

- 8.3.6. This will prevent long term structural design clashes being created between the needs of the Proposed Development and the reasonably foreseeable needs of the trees. With regards to construction, a Arboricultural Method Statement will be drawn up and incorporated within the oCEMP. It will identify relevant measures to prevent tree damage from construction activities. The implementation of this Arboricultural Method Statement will be monitored by a qualified arboricultural consultant to ensure contractual compliance. Therefore, impacts to trees as a result of the Proposed Development are not anticipated to be significant.

#### ***Approach to Assessment***

- 8.3.7. The baseline survey will be completed in accordance with British Standard (BS) 5837:2012 *Trees in relation to design, demolition and construction. Recommendations.*
- 8.3.8. The impact of the Proposed Development to trees will be determined by calculating the sphere of influence to and from the trees in accordance with the afore referenced BS 5837:2012. This provides guidance for characterising the present and future growth potential of trees (both above and below ground) by combining calculations from known measurements with interpretative skills from experienced Arboriculturalists. From this, practical arboricultural constraints can be identified at the design stage and tree related conflicts between construction and growth space avoided.
- 8.3.9. Trees to be assessed within the AIA will include trees within the Site boundary, and also those outside that are considered to be within influencing distance – a maximum of 30m beyond the Site boundary.

8.3.10. The AIA will also consider areas of offsite highways works should any existing vegetation required to be.

### ***Consultation***

8.3.11. Consultation will be undertaken with RCC and SKDC to identify if any of the trees or landscape features are subject to Tree Preservation Orders.

## **8.4. Risk of Major Accidents and/or Disasters**

### ***Introduction***

8.4.1. In accordance with Schedule 4 of the EIA Regulations, the EIA methodology chapter of the ES will describe the risks of major accidents and/or disasters that are relevant to the Proposed Development.

8.4.2. The EIA Regulations do not include the definition of major accidents and/or disasters. For the purposes of the assessment, the following three definitions and accidents and disasters have been used within the context of the Proposed Development:

- The Control of Major Accidents Hazard (COMAH) Regulations, 2015, defines a major accident as *“an occurrence such as a major emission, fire, or explosion resulting from uncontrolled development, leading to serious danger to human health or the environment (whether immediate or delayed) inside or outside the establishment, an involving one or more dangerous substances”*.
- The International Federation of Red Cross & Red Crescent Societies Disaster and Crises Management Guidance provides a useful definition for disaster, which is *“a sudden calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community’s or society’s ability to cope using its own resources. Though often caused by nature, disasters can have human origins.”*; and

- The Oxford English Dictionary defines an accident as “*an unfortunate incident that happens unexpectedly and unintentionally, typically resulting in damage or injury.*”

### ***Identifying Risks for Major Accidents and/or Disasters***

8.4.3. To help identify major accidents and/or disasters which are relevant to the Proposed Development, the following guidance documents have been referred to:

- Cabinet Office National Risk register of Civil Emergencies; and
- MH Government: Emergency Response and Recovery.

8.4.4. The Proposed Development does not introduce any construction or operational uses or procedures that are considered to have a risk of major accident or disasters that could affect existing or future sensitive receptors, which are not considered through existing regulatory regimes. Such regimes include Building Regulations, NHS England Emergency Preparedness, Resilience and Response Framework, Health and Safety at Work Act 1974, Safety at Work Regulations 1999, CDM Regulations 2015, Railway Operator Regulatory Requirements, 999 emergency service response procedure and call/response procedure to report utility system failures.

8.4.5. The paragraph below, provides a brief description of potential major accidents and/or disasters, which are considered relevant to the Proposed Development in the absence of embedded mitigation within the Proposed Development.

### **Transport Accidents**

8.4.6. The Proposed Development will increase the amount of traffic on the public highway during both the construction, operational and decommissioning phases. The Transport Assessment and Access and Highways chapter of



the ES will consider the highway safety and potential effect on accidents arising as a result of the Proposed Development.

- 8.4.7. Impacts from glint and glare to road, rail and aircraft users will be considered in the Glint and Glare chapter of the ES and mitigation measures will be identified and incorporated into the design of the Proposed Development, where necessary.
- 8.4.8. Therefore a separate chapter of the ES, covering risk of transport accidents is not considered necessary.

#### Flooding

- 8.4.9. Both the vulnerability of the Proposed Development to flooding, and its potential to exacerbating flooding will be assessed in the Flood Risk Assessment (FRA) and the Water Resources and Ground Conditions chapter of the ES to ensure that the Proposed Development is safe from water ingress for its lifetime in the event of flooding, without increasing flood risk elsewhere. As such, a separate ES chapter covering risk from flooding accidents is not considered necessary.

#### Fire

- 8.4.10. Component and equipment of the Proposed Development will be installed in accordance with the relevant Fire regulations and guidance from the Health and Safety Executive. The operational phase of the Proposed Development would involve routine maintenance and servicing of equipment to ensure the safe operation of equipment. Fire equipment and notices will also be provided onsite for the availability of personnel and would be regularly inspected and serviced in accordance with relevant Fire Regulations. The ES will include details on the measures incorporated into the design to minimise any potential impact of Proposed Development resulting from a

fire. As such, a separate ES chapter covering risk from fire accidents is not considered necessary.

- 8.4.11. An outline Battery Safety Management Plan (oBSMP) will be prepared and submitted with the DCO Application. The oBSMP will detail the regulatory guidance reviewed to ensure that all safety concerns around the BESS element of the Proposed Development are addressed in so far as is reasonably practicable.

## **8.5. Human Health**

- 8.5.1. The Proposed Development would be designed and equipment would be maintained to operate safely so as not to present a risk to human health. The Proposed Development would be constructed in accordance with safe construction industry practice and would be subject to routine monitoring, maintenance and servicing by staff during its operation.
- 8.5.2. There are interactions with human health during the construction, operation and decommissioning of the Proposed Development, which will be considered within the individual environmental topic assessments of the ES and supporting application technical documents, as listed below:
- Access and Highways (see Section 7.5 of this Scoping Report);
  - Noise and Vibration (see Section 7.6 of this Scoping Report); and
  - Water Resources and Ground Conditions, including a Draft Water and Construction Management Plan (see Section 7.7 of this Scoping Report).
  - Recreation and Amenity Assessment (see Section 7.11 of this Scoping Report);
  - Construction dust risk assessment (see Section 8.2 of this Scoping Report);;
  - Outline Battery Safety Management Plan (see Section 8.4 of this Scoping Report);
  - Outline Construction Environmental Management Plan

- Outline Decommission Environmental Management Plan; and

### ***Electromagnetic Fields (EMF)***

- 8.5.3. Power frequency electric, magnetic and electromagnetic fields (EMF) arise from generation, transmission, distribution and use of electricity and occur around power lines and electric cables and around domestic, office or industrial equipment that uses electricity. Electric fields are the result of voltages applied to electrical conductors and equipment. Magnetic fields are produced by the flow of electric current; however, although fences, shrubs and buildings and block electric fields, most materials do not readily block magnetic fields. The intensity of electric fields and magnetic fields diminishes with increasing distance from the source.
- 8.5.4. Electric fields depend on the operating voltage of the equipment. Magnetic fields depend on the electrical currents flowing and are significantly limited by most common materials. Typically, ground-level magnetic fields from underground cables fall much more rapidly with distances than those magnetic fields corresponding to an overhead line, but can be higher at small distances from the cable.
- 8.5.5. There is no direct statutory provision in the planning system relating to protection from EMFs. The Power Lines: Demonstrating compliance with EMF public exposure guidelines' published by DECC in 2012, that guidelines for both public and occupational exposure published by the International Commission on Non – Ionizing Radiation Protection (ICNIRP) in 1998 should be taken into account. The guidance states that “*overhead power lines at voltages up to and including 132 kV, underground cables at voltages up to and including 132 kV and substations at and beyond the publicly accessible perimeter*” are not capable of exceeding the ICNIRP exposure guidelines and therefore no assessment is required for these and other types of infrastructure listed on the Energy Networks Association

website. As such, the scope of the assessment of EMF in the EIA will be limited to cables associated with the Proposed Development that exceed 132kV. The only element of the Proposed Development which is likely to exceed this voltage is the export cable between the 400/33kV proposed primary substation and the existing 400kV Ryhall Substation. The export cable corridor is located approximately 500m away from the nearest residential receptor and passes under Uffington Road, therefore the effects of EMF on sensitive receptors is limited. The ES will, however, detail any design measures taken to avoid any potential for EMF on receptors.

8.5.6. As such, due to interactions with human health covered elsewhere within individual topics of the ES, it is not considered necessary to provide a separate Human Health ES chapter.

## **8.6. Waste**

8.6.1. The Proposed Development is likely to generate waste during the construction, operation and decommissioning phases; comprising of the following:

- General construction waste, including packing waste from materials, and construction materials from fencing, access roads and supporting infrastructure etc

8.6.2. All the electrical infrastructure such as PV modules, racks, inverters, transformers, batteries and other supporting infrastructure will be manufactured offsite and delivered to the Site ready for installation and therefore construction and assembly waste is expected to be minimal.

8.6.3. Large scale earth works are not anticipated as result of the construction, operation or decommissioning of the Proposed Development. An outline Excavated Materials Management Plan , included within the oCEMP, will be submitted with the application setting out details of how excavated materials

will be managed, how waste will be managed in accordance with the waste hierarchy, good practice measures for managing waste in construction and the roles and responsibilities of the construction contractor.

- 8.6.4. Waste generation during the operation phase will be minimal because of the nature of the Proposed Development.
- 8.6.5. If the Proposed Development were to be decommissioned it is not possible at this time, to identify or assess how waste products would be managed as waste recycling and disposal techniques are likely to be very different. The Proposed Development consists of a number of parts that could be readily reused or recycled, such as the metal tables, onsite cabling, stone access tracks etc. To ensure that the principles of recycling and/or reusing these materials are secured, an outline DEMP will be prepared and submitted as part of the application. In light of the above, it is therefore considered that significant waste impacts are not expected during either construction, operation or decommissioning of the Proposed Development and that a separate ES chapter covering waste is not considered necessary.

## 9.0 Cumulative Assessment

### 9.1. Introduction

- 9.1.1. Schedule 4 of the EIA Regulations require the consideration of the potential impact of inter-relationships and cumulative effects of “*existing and/or approved development*” with the development.
- 9.1.2. The overarching National Policy Statement (NPS) for Energy EN-1 states that “*when considering cumulative effects, the ES should provide information on how the effects of the applicant’s proposal would combine and interact with the effects of other development (including projects for which consent has been sought or granted, as well as those already in existence.*”
- 9.1.3. The EIA will consider the following, as appropriate:
- The likely significant cumulative effects of the Proposed Development and other major local and existing and/or approved development; and
  - The potential for impact interactions leading to an aggregated environmental effect on a receptor being greater than each of the individual effects that have been identified (e.g. local people being affected by noise, dust and increased traffic levels during the construction of the development, where those impacts are greater combined than individually).

#### ***Intra-project effects: Impact Interactions***

- 9.1.4. These effects occur between different environmental topics within the same project, as a result of that development's direct effects (IEMA, 2011). For example, if a development proposal is likely to increase traffic flows, the



impact that the increase in traffic will have on sensitive noise receptors will be assessed.

- 9.1.5. Each topic chapter within the ES will provide a summary of impact interactions, setting out how the particular topic area has considered and assessed secondary effects arising as a result of direct impacts from other environmental chapters. Rather than assessing this separately, secondary effects are often considered within the main assessment owing to the integrated nature of the EIA process, where this is the case, this will be explained within each of the environmental topic chapters of the ES.

***Inter-project Effects: Cumulative Impacts***

- 9.1.6. This form of cumulative effect occurs as a result of the likely impacts of the proposed development interacting with the impacts of other developments in the vicinity (IEMA, 2011).
- 9.1.7. The EIA Regulations require the EIA to consider cumulative effects, i.e. the cumulative effect of the Proposed Development being carried out alongside other existing and/or approved developments. The EIA will include an assessment of the potential effects of the Proposed Development in the context of other local developments and, therefore, the cumulative effects that may result from the Proposed Development and these other developments on the same receptor.
- 9.1.8. The EIA will consider the cumulative effects of the Proposed Development in combination with the environmental effects of other existing and/or approved developments on sensitive receptors identified through the EIA process. The scope of cumulative assessment includes identification of a long list of development within the appropriate Zone of Influence (ZoI) for each topic discipline, which will form the basis of the search area for the cumulative effects assessment. The cumulative effects assessment will

draw upon the method as set out within Advice Note Seventeen (Cumulative Effects Assessment), as published by the Planning Inspectorate (PINS) in August 2019 (see Table 9.1 below).

**Table 9.1: Identifying and assigning certainty to cumulative developments (PINS Advice Note Seventeen, 2019)**

Tier 1	<ul style="list-style-type: none"> <li>• Under construction;</li> <li>• Permitted application(s), whether under the PA2008 or other regimes, but not yet implemented; and</li> <li>• Submitted application(s) whether under the PA2008 or other regimes but not yet determined</li> </ul>
Tier 2	<ul style="list-style-type: none"> <li>• Projects on the Planning Inspectorate’s Programme of Projects where a scoping report has been submitted.</li> </ul>
Tier 3	<ul style="list-style-type: none"> <li>• Projects on the Planning Inspectorate’s Programme of Projects where a scoping report has not been submitted.</li> <li>• Identified in the relevant Development Plan (and emerging Development Plans – with appropriate weight being given as they move closer to adoption) recognising that there will be limited information available on the relevant proposals.</li> <li>• Identified in other plans and programmes (as appropriate) which set the framework for future development consents/approvals, where such development is reasonably likely to come forward.</li> </ul>

## 9.2. Approach to Cumulative Site Search

9.2.1. The cumulative effects assessment will adopt a four-staged approach, as set out in the following subheadings:

### **Stage 1**

9.2.2. The cumulative effects assessment will include the identification of a long list of other existing and/or approved development using the tiered approach adopted from PINS Advice Note Seventeen (above). The ZoI for each topic discipline will be identified which will form the basis of the search area. This

long list will be kept under continual review up until the point of determination of the application to ensure that the information within the ES is up to date at the point of decision.

- 9.2.3. The Zol for each environmental topic area has been identified based on the extent of likely effects. The Zol has been identified in line with industry specific guidance along with professional judgement and knowledge of the local area for each environmental topic area. The identified Zols are presented in Table 9.2.

**Table 9.2: Zone of Influence Identified for the Cumulative Effects Assessment**

<b>Topic</b>	<b>Zone of Influence (Zol)</b>
Landscape and Visual Impact	Landscape and visual receptors: 2km
Ecology and Biodiversity	Internationally designated sites: 10km Nationally designated Sites: 2km Locally designated sites: 2km Protected species records: 2km Surveys – most surveys limited to Site boundary and immediate vicinity but will extend to 500m for GCN ponds and winter bird survey will include adjacent fields.
Access and Highways	Extent of the LRN affected by the construction and decommissioning phase, as well as any identified sensitive receptors. The three potential access routes from the SRN to the Site will be considered.
Noise and Vibration	500m from the proposed solar development footprint areas, and 800m from the primary substation area.
Water Resources and Ground Conditions	Hydrological and hydrogeological receptors within a 5km radius from the Site, based on the hydrological and hydrogeological connectivity of water bodies located downstream of the Proposed Development.
Land Use	The Site and adjoining agricultural land, where relevant.

<b>Topic</b>	<b>Zone of Influence (Zol)</b>
Glint & Glare	Other solar PV projects within 1km of an assessed ground-based receptor may be relevant from a cumulative impact perspective.
Climate Change Impact Assessment	In-Combination Climate Change Impact (ICCI): dependant on related individual topics (e.g. flood risk) Climate Change Resilience: Site Boundary Greenhouse Gas emissions: GHG emissions from the Proposed Development and contribution to national GHG targets.
Socio-economics	Rutland County Council and South Kesteven District Council

## **Stage 2**

9.2.4. Stage 2 of the cumulative effects assessment approach will be to review and apply a threshold criteria to the long list, in order to establish a short list of other existing and/or approved development to ensure that the cumulative assessment is proportionate. The criteria will ensure that only other existing and/or approved development which is likely to result in significant cumulative effects is taken forward to the assessment stage. The shortlist of existing and/or approved development will be consulted upon with statutory and non-statutory consultees during the EIA process. The threshold criteria to be used will consider the following factors:

- Temporal Scope;
- Scale and Nature of the Development;
- Other factors such as, nature and capacity of the receiving environment, source-pathway-receptor approach; and
- Professional judgement.

**Stage 3**

9.2.5. Environmental information will be gathered for short listed existing and/or approved development, where available, including details of:

- Proposed design;
- Location;
- Programme (construction, operation and decommissioning);
- Baseline data; and
- Effects arising from such other developments.

**Stage 4**

9.2.6. Assessment of likely cumulative effects. The assessment will be undertaken to an appropriate level of detail commensurate with the information available on other existing and/or approved developments and will set out measures envisaged to reduce or avoid any identified significant adverse cumulative effects and, where appropriate, any proposed monitoring arrangements.

9.2.7. The EIA cumulative assessment will be coordinated with the Transport Assessment to ensure that the cumulative sites considered as consistent with one another.

## 10.0 Summary

10.1.1. In accordance with the EIA Regulations the Scoping process is a formal regulatory stage that helps define the scope and level of detail to be included within the ES. The purpose of the scoping process is to identify the main issues that will be the focus of the assessment and avoid the need for the assessment to cover every possible environmental impact to unwarranted detail.

10.1.2. Table 10.1 summarises the scope of the environmental topics assessments included in Chapter 7 of this report, which highlights the particular issues that are proposed to be scoped in and out of the EIA.

10.1.3. For the reasons set out within this Scoping Opinion Request, it is therefore proposed that the following topics are scoped out of the EIA:

- Cultural Heritage;
- Air Quality;
- Arboriculture;
- Socio-economics;
- Major Accidents and/or Disasters;
- Human Health, including Electro Magnetic Fields; and
- Waste.

10.1.4. While these topics have been scoped out technical work is being undertaken and the application for DCO and ES will be accompanied by the following documents:

- Outline Landscape and Ecological Management Plan;
- Cultural Heritage Impact Assessment Report;
- Outline Construction Traffic Management Plan;
- Outline Construction Environmental Management Plan; including:
  - Outline Excavated Material Management Plan;



- Draft Water and Construction Management Plan;
- Construction dust risk assessment measures;
- Arboricultural Method Statement;
- Outline Decommissioning Environmental Management Plan;
- Arboricultural Impact Assessment;
- Recreation and Amenity Assessment; and
- Residential Visual Amenity Assessment.

**Table 10.1: Summary of EIA Scope**

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
Landscape and Visual (effects within a 2km Study Area)	Visual Effects:  Residents, Visitors, Users of PRow, Macmillan Way Long Distance Footpath, Local Roads and East Coast Main Line Railway.	In	In	In
	Rutland Local Landscape Character Areas:  Rutland Plateau- Clay Woodlands (Dii) LCA Rutland Plateau - Gwash Valley (Diii) LCA	In	In	In
	South Kesteven Landscape Character Areas:  Kesteven Uplands LCA	In	In	In
	Peterborough City Council Landscape Character Areas:	Out	Out	Out

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	Nassaburgh Undulating Limestone			
	Welland Valley			
	Burley House Grade II* RPG	In	In	In
	Settlements / Villages	In	In	In
	Residential Amenity	Out	Out	Out
	Recreation and Amenity	Out	Out	Out
	Statutory designated sites - adverse impacts to sites through habitat loss	In	Out	In
Ecology and Biodiversity	Statutory designated sites - adverse impacts to site integrity through loss of supporting habitat	Out	Out	Out

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	Statutory and non-statutory sites - adverse impacts to sites through accidental damage / pollution	In	Out	In
	Habitats -Loss of valuable habitats including damage to HPis	In	Out	In
	Bats (foraging) – Habitat loss	In	Out	In
	Bats (roosting) – Damage to roosts	In	Out	In
	Badgers - Damage to setts and foraging habitat	In	Out	In
	Water vole and otter - Habitat loss and damage to resting places	In	Out	In

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	Hazel dormouse - Habitat loss /degradation; damage to resting places; injuring individual dormice	In	Out	In
	Other SPI mammals - Loss of habitat / habitat degradation	In	Out	In
	Breeding birds – Damage to nests during vegetation management/removal	In	Out	In
	Breeding birds (skylark, lapwing and yellow wagtail) – Habitat loss	In	Out	In
	Breeding birds (other species) – Habitat loss	In	Out	In
	Wintering birds – Habitat loss	In	In	Out
	Reptiles – Habitat loss	In	Out	In

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	Reptiles – Injury or death to individual reptiles	In	Out	In
	Amphibians – Habitat loss	In	Out	In
	Amphibians – Injury or death to individual GCN	In	Out	in
	Invertebrates – Habitat loss	In	Out	In
	Severance	In	Out	Out
	Driver Delay	In	Out	Out
Access and Highways	Pedestrian Delay	In	Out	Out
	Pedestrian and Cyclist Amenity	In	Out	Out
	Fear and Intimidation	In	Out	Out



Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	Accidents and Road Safety	In	Out	Out
	Hazardous Loads	Out	Out	Out
Noise and Vibration	Noise and vibration from construction activities and associated traffic on neighbouring residential receptors	In	Out	Out
	Noise from plant during operation on neighbouring residential receptors	Out	In	Out
	Noise from traffic and vibration effects during operation	Out	Out	Out
Water Resources and Ground Conditions	Increase in surface water run-off from areas of hardstanding	In	In	In
	Ensuring the Proposed Development is safe from water ingress for its lifetime in the event	In	In	In

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	of flooding, without increasing flood risk elsewhere			
	Potential impediment to drainage ditch flow as a result of crossings	In	In	In
	Potential transfer of sediment to surface water resources	In	Out	In
	Potential transfer of chemicals to surface water resources	In	Out	In
	Potential effects on public water supply	Out	In	Out
Land Use	Temporary (long-term) loss of land of BMV quality	In	In	In
	Temporary (long-term) loss of land of poorer quality	In	In	In

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	Impact on farm businesses	In	In	In
Glint and Glare	Reflected sunlight from the solar panels causing a nuisance of a safety hazard to surrounding observers	In	In	Out
	The vulnerability of the Proposed Development to climate change	Out	In	Out
Climate Change Impact Assessment	The influence of the Proposed Development on climate change	In	In	In
	Changes to the future baseline of other environmental aspects as a result of climate change	In	In	In
	Indirect effects of climate change, such as political conflicts caused or triggered by	Out	Out	Out

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	climate change leading to changes in the supply chain or changes in the energy market			
	Carbon emissions generated by the Proposed Development	In	In	In
Cultural Heritage	Buried archaeological remains	Out	N/A	N/A
	Historic buildings, monuments and structures (designated)	N/A	Out	N/A
	Historic landscape (designed and non-designed landscape)	N/A	Out	N/A
Air Quality	Exposure of existing sensitive human receptors to elevated pollutant concentrations (emissions from vehicle exhausts and combustion sources)	Out	Out	Out

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	Exposure of existing sensitive ecological receptors to elevated nitrogen deposition (emissions from vehicle exhausts and combustion sources)	Out	Out	Out
	Exposure of existing sensitive human and ecological receptors to fugitive dust emissions	Out	Out	Out
Arboriculture	Impact to trees	Out	Out	Out
	Impact on employment	In	In	In
Socio-economics	Impact on Amenity and Recreation	Out	Out	Out
	Impact on Tourism	Out	Out	Out
Risk of Major Accidents and/or Disasters	Impacts from major flooding or fire events or from transport accidents	Out	Out	Out

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
Human Health	Impacts to human health	Out	Out	Out
Waste	Impacts from waste generation	Out	Out	Out



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# Mallard Pass

Solar Farm

## **Mallard Pass Solar Farm**

**Preliminary Environmental Information Report**

**Volume 3: Appendices**

**Appendix 2.2: EIA Scoping Opinion**

**May 2022**



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# **SCOPING OPINION:**

## **Proposed Mallard Pass Solar Project**

**Case Reference: EN010127**

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Adopted by the Planning Inspectorate (on behalf of the Secretary of State) pursuant to Regulation 10 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

**18 March 2022**



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# 1. INTRODUCTION

- 1.0.1 On 07 February 2022, the Planning Inspectorate (the Inspectorate) received an application for a Scoping Opinion from Mallard Pass Solar Farm Limited (the Applicant) under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) for the proposed Mallard Pass Solar Project (the Proposed Development). The Applicant notified the Secretary of State (SoS) under Regulation 8(1)(b) of those regulations that they propose to provide an Environmental Statement (ES) in respect of the Proposed Development and by virtue of Regulation 6(2)(a), the Proposed Development is 'EIA development'.
- 1.0.2 The Applicant provided the necessary information to inform a request under EIA Regulation 10(3) in the form of a Scoping Report, available from:  
  
<http://infrastructure.planninginspectorate.gov.uk/document/EN010127-000013>
- 1.0.3 This document is the Scoping Opinion (the Opinion) adopted by the Inspectorate on behalf of the SoS. This Opinion is made on the basis of the information provided in the Scoping Report, reflecting the Proposed Development as currently described by the Applicant. This Opinion should be read in conjunction with the Applicant's Scoping Report.
- 1.0.4 The Inspectorate has set out in the following sections of this Opinion where it has / has not agreed to scope out certain aspects / matters on the basis of the information provided at as part of the Scoping Report. The Inspectorate is content that the receipt of this Scoping Opinion should not prevent the Applicant from subsequently agreeing with the relevant consultation bodies to scope such aspects / matters out of the ES, where further evidence has been provided to justify this approach. However, in order to demonstrate that the aspects / matters have been appropriately addressed, the ES should explain the reasoning for scoping them out and justify the approach taken.
- 1.0.5 Before adopting this Opinion, the Inspectorate has consulted the 'consultation bodies' listed in Appendix 1 in accordance with EIA Regulation 10(6). A list of those consultation bodies who replied within the statutory timeframe (along with copies of their comments) is provided in Appendix 2. These comments have been taken into account in the preparation of this Opinion.
- 1.0.6 The Inspectorate has published a series of advice notes on the National Infrastructure Planning website, including [Advice Note 7: Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping \(AN7\)](#). AN7 and its annexes provide guidance on EIA processes during the pre-application stages and advice to support applicants in the preparation of their ES.
- 1.0.7 Applicants should have particular regard to the standing advice in AN7, alongside other advice notes on the Planning Act 2008 (PA2008) process, available from:



<https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

- 1.0.8 This Opinion should not be construed as implying that the Inspectorate agrees with the information or comments provided by the Applicant in their request for an opinion from the Inspectorate. In particular, comments from the Inspectorate in this Opinion are without prejudice to any later decisions taken (e.g. on formal submission of the application) that any development identified by the Applicant is necessarily to be treated as part of a Nationally Significant Infrastructure Project (NSIP) or Associated Development or development that does not require development consent.

## 2. OVERARCHING COMMENTS

### 2.1 Description of the Proposed Development

(Scoping Report Section 2.0)

ID	Ref	Description	Inspectorate's comments
2.1.1	Figure 2.1	Site Location Plan	The site location plan depicts the site boundary, which includes the whole of the Proposed Development and the Solar Photovoltaic (PV) site boundary (the area for the panels). The boundary lines overlap in places and the same or similar key colours are used, which prevents a full understanding of how the boundary of the Proposed Development relates to the solar PV site. In addition, certain fields or sections of fields within the site appear to be excluded. The ES should include a figure or figures that clearly set out the Proposed Development boundary and the land included therein.
2.1.2	Figure 2.3	Topography	The topographical plan included in the Scoping Report lacks clarity regarding the land that is included in the redline boundary. It appears that certain field areas have been excluded from the red line boundary. The ES needs to include plans which clearly show the land required for the Proposed Development.
2.1.3	3.4.9	Construction compounds	The ES should provide details regarding the location, construction, operation, decommissioning and proposed duration of construction compounds required and assess where significant effects are likely to occur. This should include details of any measures proposed to enhance the sustainability of construction compound set up (e.g. use of renewable energy, rainwater harvesting etc).
2.1.4	N/A	Temporary Roadways	The ES should provide details regarding the location, construction, operation, decommissioning and proposed duration of temporary

ID	Ref	Description	Inspectorate's comments
			roadways required and assess where significant effects are likely to occur.
2.1.5	3.5.1 and 3.6.1	Operational lifespan/Decommissioning	<p>The Scoping Report states at paragraph 3.5.1 that an operational lifespan will not be specified in the application and the EIA will be carried out on the basis that the development is permanent.</p> <p>However, paragraph 3.6.1 states that a decommissioning statement will be based on 40-year operational life span for the solar infrastructure.</p> <p>Paragraph 3.6.2 states that the site will be returned to its original use after decommissioning, further suggesting that there is a limited lifespan for the Proposed Development.</p> <p>The ES needs to be clear as to whether decommissioning is to take place after 40 years or whether components are likely to be replaced to extend the lifespan of the development. Should components be replaced to extend the lifespan of the Proposed Development, the scale of this (particularly in the case of a comprehensive refurbishment of panels) and the likely significant effects should be assessed.</p> <p>The ES should clearly set out if and how decommissioning is to be assessed and any components which may remain following decommissioning.</p> <p>The Inspectorate would expect to see decommissioning secured through the inclusion of an Outline Decommissioning Plan or similar submitted with the Application.</p>
2.1.6	3.5.3	Grazing	Where the ES relies upon grazing as mitigation for loss of Best and Most Versatile (BMV) land, it should be demonstrated that the land is not subject to restrictive covenants that would prevent such use and

<b>ID</b>	<b>Ref</b>	<b>Description</b>	<b>Inspectorate's comments</b>
			that such mitigation is secured in respect of the operation of the Proposed Development.
2.1.7	10.1.3	Summary	The Summary of the Scoping Report is not consistent with the rest of the document. The Inspectorate has therefore disregarded the summary and relied upon the information in the aspect chapters to inform this Scoping Opinion.

## 2.2 EIA Methodology and Scope of Assessment

(Scoping Report Chapter 6)

<b>ID</b>	<b>Ref</b>	<b>Description</b>	<b>Inspectorate's comments</b>
2.2.1	N/A	Scoping Table	The Inspectorate advises the use of a table to set out the key changes in parameters/options of the Proposed Development presented in the Scoping Report to that presented in the ES. It is also advised that a table demonstrating how the matters raised in the Scoping Opinion have been addressed in the ES and/or associated documents is provided.
2.2.2	6.5.14	Significance of effect	The Scoping Report outlines the approach to assigning significance but does not clearly explain what level of effect is determined to be significant in EIA terms. Typically, moderate and major effects are deemed to be significant, whereas the Scoping Report suggests that only effects that are major are likely to be key to decision making. The ES should clearly identify the likely significant effects of the Proposed Development.

### 3. ENVIRONMENTAL ASPECT COMMENTS

#### 3.1 Landscape and Visual

(Scoping Report Section 7.3)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.1.1	7.3.30	National Designated Landscapes	<p>The Applicant proposes to scope out Designated Landscapes as there are no national landscape designations located within or in close proximity to the site, the nearest being over 50km away.</p> <p>The Inspectorate agrees that, in the absence of any nationally designated landscapes, namely National Parks or Areas of Outstanding Natural Beauty, within the vicinity of the Proposed Development this matter can be scoped out.</p>
3.1.2	7.3.31 and 7.3.32	Local Landscape Designations	<p>The Applicant proposes to scope out Local Landscape Designations (namely an 'Area of Particularly Attractive Countryside' and an 'Area of Local Landscape Value') as there will be very limited visibility of the Proposed Development from these sites and as such their character will not be affected.</p> <p>In the absence of a plan showing the location and elevation of these areas in relation to the Proposed Development site, the Inspectorate is not in a position to agree to scope this matter out at this stage.</p>
3.1.3	7.3.33	Landscape Character Areas (LCAs)	<p>The Scoping Report states that LCAs over 1km from the site will be scoped out of the assessment as there is limited visibility of the Proposed Development from these areas. However, Table 10.1 suggests that Welland Valley LCA is scoped out despite it being "approximately 1km away".</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>In the absence of information, such as a plan demonstrating the location of the LCAs in relation to the site boundary, the Inspectorate is not in a position to agree to scope these matters from the assessment at present without further explanation and justification.</p>
3.1.4	7.3.34	Registered Parks and Gardens – Greatford Hall and Uffington Park	<p>The Applicant proposes to scope out the Grade II listed Greatford Hall and Uffington Park Registered Parks and Gardens (RPG) receptors, as there is a lack of intervisibility between the two.</p> <p>In the absence of more detailed information such as topography and the sensitivity of views from these receptors, the Inspectorate is not in a position to agree to scope these matters from the assessment. Therefore, the ES should include an assessment of this matter or provide information to demonstrate the absence of a likely significant effect.</p>
3.1.5	7.3.35	Registered Parks and Gardens – Burghley House and Holywell Hall Park	<p>The Applicant proposes to scope out Burghley House (Grade II*) and Holywell Hall Park (Grade II) RPGs on the basis that there is limited visibility of the Proposed Development from these receptors.</p> <p>The Scoping Report notes that although Burghley House is located within the 2km study area (approximately 1.5km at its closest point), it is over 2.3km from the “built elements (solar arrays)” of the Proposed Development and a landscape buffer is also proposed which will reduce the visibility. However, paragraph 7.3.17 and Table 10.1 state that Burghley House RPG will be included within the Landscape and Visual Impact Assessment (LVIA) as a landscape receptor. As such, the Scoping Report is ambiguous regarding the need to assess effects on Burghley House RPG.</p> <p>The Inspectorate considers that as some potential for views of the Proposed Development is acknowledged to exist between it and the two RPGs; the Scoping Report places reliance upon as yet</p>

<b>ID</b>	<b>Ref</b>	<b>Applicant's proposed matters to scope out</b>	<b>Inspectorate's comments</b>
			undeveloped landscape buffers; and the layout of the scheme has not yet been confirmed; the ES should include an assessment of effects on these receptors or provide detailed justification for scoping out further assessment. The Applicant should seek to agree such approaches with relevant consultation bodies, where possible.
3.1.6	7.3.37	Residential amenity	The Applicant proposes to scope out residential receptors as the Proposed Development will be set back from settlement fringes and residential properties. As this matter depends upon undeveloped areas as a landscape buffer and the layout of the scheme has not yet been confirmed, the Inspectorate is not yet in a position to agree to scope this matter out. The ES should assess any potential likely significant effect and/or describe any proposed mitigation measures, as well as methods by which to secure these. Where such measures are locationally specific, a plan would assist understanding.
3.1.7	Table 10.1	Recreation and Amenity	<p>It is noted in the Summary chapter of the Scoping Report that Recreation and Amenity is proposed to be scoped out of the LVIA for all stages of the Proposed Development. However, no justification is provided within the Scoping Report.</p> <p>In the absence of evidence, and in light of the potential for the Proposed Development to impact existing recreation and amenity including existing rights of way, the Inspectorate cannot agree to scope this matter out and an assessment of significant effects should be presented where they are likely to occur.</p>

<b>ID</b>	<b>Ref</b>	<b>Description</b>	<b>Inspectorate's comments</b>
3.1.8	7.3.1	Mitigation	The Scoping Report states that likely significant effects will be avoided through mitigation measures embedded in the Proposed



ID	Ref	Description	Inspectorate's comments
			<p>Development design, namely "<i>layout optioneering, setting back the development footprint from sensitive receptors, and/or implementation of screening planting to limit effects on sensitive receptors</i>".</p> <p>Where the avoidance of a likely significant effect is reliant upon mitigation measures, these should be described within the ES along with the proposed methods by which they will be secured through the Development Consent Order (DCO). Where a measure is locationally specific, a plan may assist understanding.</p>
3.1.9	7.3.13 and 7.3.14	Study Area	<p>The Scoping Opinion notes that a Zone of Theoretical Visibility (ZTV) used for the computer modelling was 3km and that this did not take into account localised features. The Scoping Report goes on to state that the study area will be 2km although the reasons for this reduced study area are not explained. Paragraph 7.3.22 notes that the assessment may include viewpoints outside of the study area. The Inspectorate considers that the study area should be informed by the extent of likely effects rather than an arbitrary study area boundary. The ES should evidence how the study area has been derived to ensure it is representative and should be agreed with relevant consultation bodies where possible.</p>
3.1.10	7.3.19	LVIA	<p>The Scoping Report states that the ZTV has been modelled on solar panel infrastructure heights of 3.5m and substation building heights of 13m. However, the Proposed Development includes other built infrastructure, including security fencing and CCTV poles, as well as lightning masts up to 6m in height. Furthermore, the Scoping Report notes the requirement to raise infrastructure 600mm in certain areas of the site (1-in-100 flood risk areas), the assessment should clarify the assumptions used to underpin the development of the ZTV.</p>

ID	Ref	Description	Inspectorate's comments
3.1.11	n/a	Lighting	<p>There is no reference to lighting effects within the LVIA section of the Scoping Report, and effects resulting from lighting are not listed as a potential effect (in paragraph 7.3.26).</p> <p>Although lighting effects on ecological receptors are considered within the Ecology and Biodiversity chapter, the ES should assess the lighting effects on landscape and visual receptors or demonstrate that no likely significant effects will occur. This should also include consideration of effects relating to intermittent lighting sources such as motion activated security lighting.</p>

### 3.2 Ecology and Biodiversity

(Scoping Report Section 7.4)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.2.1	7.4.113 to 7.4.114	International Statutory Designated Sites	<p>The Applicant proposes to scope out the construction, operational and decommissioning effects of the Proposed Development on internationally important statutory designated sites. The Scoping Report states that the nearest sites, Rutland Water Special Protection Area (SPA) and Ramsar, are located approximately 8.65km away from the Proposed Development site and no adverse effects are likely to occur.</p> <p>Scoping Report paragraph 7.4.54 states that 'ducks', which are a qualifying feature of the Rutland Water SPA, are present on site. However, no specific duck species are referenced within the Scoping Report. The ES should provide information relating to the presence of specific species, identifying those listed as qualifying features of the Rutland Water SPA within the site and provide an assessment accordingly.</p> <p>The ES should provide an assessment of likely significant effects on international statutory designated sites, including the potential for the Proposed Development site to provide functionally linked land for bird species associated with the Rutland Water SPA and Ramsar site, or provide evidence to demonstrate the absence of a likely significant effect.</p>
3.2.2	7.4.11 and 7.4.76 to 7.4.77	National Statutory Designated Sites during operation	<p>The Applicant proposes to scope out operational effects on nationally important statutory designated sites. The Scoping Report states that the potential effects during construction and decommissioning of the Proposed Development, such as habitat loss and accidental damage, are unlikely to occur during operation.</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>The Scoping Report states that seven national statutory designated sites are present within two kilometres of the site, including Ryhall Pasture and Little Warren Verges Site of Special Scientific Interest (SSSI) and Toletorpe Road Verges SSSI, which are located directly adjacent to the north-west of the site.</p> <p>The Inspectorate is of the opinion that this matter can be scoped out at this stage. However, the ES should ensure that the construction assessment of likely significant effects on national statutory designated sites clearly identifies whether any loss or impact on habitat is temporary or permanent in nature.</p>
3.2.3	7.4.12 to 7.4.13 and 7.4.78 to 7.4.79	Non-Statutory Designated Sites during operation	<p>The Applicant proposes to scope out the operational effects of the Proposed Development on non-statutory designated sites.</p> <p>The Scoping Report states that 98 national statutory Local Wildlife Sites (LWSs) are present within two kilometres of the site, and nine are located wholly or in part within the site.</p> <p>In the absence of information demonstrating no likely significant effects and the location of the Proposed Development site in relation to non-statutory designated sites surrounding and within the red line boundary, the Inspectorate is of the opinion that this matter cannot be scoped out at this stage. The ES should include an assessment of likely significant effects on non-statutory designated sites or provide evidence to demonstrate the absence of a likely significant effect.</p>
3.2.4	7.4.115	Protected Species during operation, excluding wintering birds	<p>The Applicant proposes to scope out the operational effects of the Proposed Development on all protected species, excluding wintering birds. The Scoping Report has proposed a number of mitigation measures to enable scoping out effects on protected species during operation. The mitigation measures include a lighting strategy to avoid artificial lighting on linear features, woodland and other</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>retained or created habitats, a limitation on operational traffic and no regular presence or work on site that may lead to disturbance of habitats.</p> <p>However, considering the change in landscape character and extent of land take required for the Proposed Development there is potential for likely significant effects on all protected species during operation, including ground nesting birds. The ES should assess the impacts of all stages of the Proposed Development on all breeding birds.</p> <p>The ES should also provide a clear description of mitigation measures for the enhancement and creation of habitats that will deliver a range of benefits for protected species and set out methods by which all mitigation measures for protected species will be secured.</p>
3.2.5	7.4.105	Effects on wintering birds during decommissioning	<p>The Applicant proposes to scope out the decommissioning effects of the Proposed Development on wintering birds, however no justification has been provided to support this.</p> <p>Given the potential effects during decommissioning are likely to be similar to those experienced during construction, including disturbance and damage to habitat, the Inspectorate is of the opinion that this matter cannot be scoped out at this stage.</p>

ID	Ref	Description	Inspectorate's comments
3.2.6	7.4.69	Study Area	<p>The Scoping Report notes that a wider study area was used (2km) for the gathering of data for contextual purposes but it is not explained how this 'wider' study area will be used in the assessment. The ES should explain and justify the study area. The ES should consider the potential for impacts on international sites designated for bats within a 30km study area.</p>

<b>ID</b>	<b>Ref</b>	<b>Description</b>	<b>Inspectorate's comments</b>
3.2.7	7.4.25	Fish and Aquatic Invertebrates	The West Glen River flows through the site, however, no fish or aquatic invertebrate surveys have been or are noted as being undertaken for the river. Details of the surveys should be provided within the ES, or it should be demonstrated why fish and aquatic invertebrate surveys are not required and potential likely significant effects on these species can be ruled out.
3.2.8	N/A	Plants	The Scoping Report provides a description of the baseline for plant species. However, the potential effects on plants are not described and it is not determined as to whether there is a potential for likely significant effects and therefore if this matter is scoped in or out of the assessment. The ES should be clear which matters are scoped in or out and provide a robust justification for matters scoped out.
3.2.9	N/A	Panel configuration	The ES should explain the relationship between panel configuration and vegetation growth on site and how panel configuration will be designed to avoid shading of vegetation and effects on LWSs that are located within the site.
3.2.10	7.4.2	Hedgerows	The ES should also include an explanation of how the hedgerow boundaries of the site will be retained and enhanced to deliver a range of benefits to protected species.
3.2.11	N/A	Ancient Woodland and Veteran Trees	The ES should also assess any likely significant effects on veteran trees and ancient woodland. Veteran trees are not referenced in the Scoping Report, and ancient woodland is identified as being present immediately adjacent to the north-east site boundary. The ES should identify any veteran trees outside these ancient woodland areas.
3.2.12	N/A	Confidential annexes	Public bodies have a responsibility to avoid releasing environmental information that could bring about harm to sensitive or vulnerable ecological features. Specific survey and assessment data relating to

ID	Ref	Description	Inspectorate's comments
			<p>the presence and locations of species such as badgers, rare birds and plants that could be subject to disturbance, damage, persecution, or commercial exploitation resulting from publication of the information, should be provided in the ES as a confidential annex. All other assessment information should be included in an ES chapter, as normal, with a placeholder explaining that a confidential annex has been submitted to the Inspectorate and may be made available subject to request.</p>



### 3.3 Access and Highways

(Scoping Report Section 7.5)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.3.1	7.5.55	Alternative modes of construction access	The Inspectorate is content that modes of transport (such as rail) that will not be utilised for construction material delivery can be scoped out of the assessment.
3.3.2	7.5.56	Hazardous or dangerous loads	The Inspectorate is content that this matter may be scoped out subject to the inclusion of appropriate measures to ensure safe transportation within the outline Construction Environmental Management Plan and/or outline Construction Transport Management Plan.
3.3.3	7.5.57 - 59	Operational Traffic	The Inspectorate is content that the information provided in the Scoping Report in relation to staff required on site during operation demonstrates that transportation to and from site is unlikely to result in significant effects. The Inspectorate is content for this matter to be scoped out of the assessment based on the figures provided. The ES description of development should confirm the anticipated trip generation during operation to justify this.

ID	Ref	Description	Inspectorate's comments
3.3.4	7.5.8	Baseline data	Traffic movement baselines have shifted as a result of the Covid-19 pandemic. The Applicant should seek agreement with the relevant consultation bodies regarding the degree to which data collected in 2021 is representative and/or whether historic data should be used to validate, supplement, or replace such data.

### 3.4 Noise and Vibration

(Scoping Report Section 7.6)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.4.1	N/A	Noise and vibration from traffic movements during construction and decommissioning	The Inspectorate notes that 60 two-way HGV movements per day and transportation for 100-150 workers is predicted during the peak construction period. In the absence of information to demonstrate that traffic movements will not exceed relevant thresholds for further assessment (e.g. 30% increase in traffic or HGV numbers or 10% increase in sensitive areas as suggested in the Guidelines for the Environmental Assessment of Road Traffic, 1993), the Inspectorate is not content to scope out traffic movements during construction at present. The ES should provide information on trip generation, traffic routing, noise emissions and distances from receptors including any measures that are to be secured to avoid or reduce likely significant effects.
3.4.2	7.6.40	Noise and vibration from operational traffic movements	The Scoping Report notes that vehicle trip generation during operation is unlikely to be significant. The Inspectorate agrees that this matter can be scoped out, based on the figures provided however the ES description of development should confirm the anticipated trip generation (including number and type of vehicles) during operation to justify this.

ID	Ref	Description	Inspectorate's comments
3.4.3	7.6.6	Baseline	Traffic movement baselines have shifted as a result of the Covid-19 pandemic. The Applicant should seek agreement with the relevant consultation bodies regarding the degree to which data collected in

ID	Ref	Description	Inspectorate's comments
			2021 is representative and/or whether historic data should be used to validate, supplement, or replace such data.
3.4.4	7.6.2	Assessment of tracker panels	The Scoping Report states that tracker panels may be used on the site however paragraph 7.6.2 does not specify whether noise from this panel type could constitute a likely significant effect during operation. The noise assessment should explain the noise emissions from such panels and provide an assessment of operational noise effects.

### 3.5 Water Resources and Ground Conditions

(Scoping Report Section 7.7)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.5.1	7.7.39	Potential transfer of sediment and chemicals to surface water resources during operation	The Inspectorate agrees that the presence of chemicals and soil disturbance during operation, including maintenance procedures is unlikely to give rise to significant effects. The Inspectorate expects that the ES will explain why the operational development will not give rise to routine emissions of chemicals (i.e. that panels are effectively inert) or sediment and how emergency releases would be managed within an Operation Environment Management Plan and/or Soil Management Plan and Battery Safety Management Plan. Therefore, the Inspectorate is content to scope this matter out.

ID	Ref	Description	Inspectorate's comments
3.5.2	N/A	Cumulative effects	Paragraph 3.1.12 states that solar PV panels will be pile driven or screw mounted into the ground. The Scoping Report does not indicate the number of modules, however given the size of the 'solar development area' in Figure 3.1, it is likely that a large number of steel poles will be required. Paragraph 7.7.4 states that the site is at risk of flooding and paragraph 7.7.5 states that the elements of the project lie within groundwater Source Protection Zones 1 and 2 and the River Welland catchment Surface Water Safeguard Zone. This aspect chapter should consider the cumulative effects of these steel poles being driven into the ground across the entirety of the developable area in addition to any impacts from changes in surface run off from the panel and impermeable ground coverings on the drainage patterns within the site and the study area.

ID	Ref	Description	Inspectorate's comments
3.5.3	N/A	Piling and irrigation	The ES should consider if there is potential for piling for the solar panels to interrupt any drainage/irrigation systems that may be present below ground and any field drains present.
3.5.4	7.7.10	Representative baseline	The Scoping Report relies on information contained in a previous contaminated land survey undertaken at Wood Farm. The farm is located 250m west of the Proposed Development site and the historic mapping study area for the Wood Farm assessment is a 100m buffer around the site. As such, the study area does not overlap with the Mallard Pass Solar Project site. The ES should justify the use of any historic datasets and justify how these are representative of the Proposed Development site.

### 3.6 Agriculture and Land Use

(Scoping Report Section 7.8)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.6.1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Description	Inspectorate's comments
3.6.2	7.8.5	Agricultural Land Classification Survey	The Applicant has stated that they will conduct a ' <i>semi-detailed</i> ' Agricultural Land Classification survey at the site based on 210 auger surveys located on a 200m grid. The Applicant should ensure that a sufficient number of auger locations are used across the site to accurately inform the assessment in line with relevant guidance and/or standards (e.g. Natural England Technical Information Note TIN049, 2012), or justify why this surveying methodology approach is sufficient.
3.6.3	7.8.17	Magnitude of impacts	The Scoping Report states that the loss of more than 50ha of BMV land is considered to be large/major in magnitude, losses of 20-50ha are of moderate/medium and losses of less than 20ha are of low magnitude. This is stated to be based on ' <i>established practice</i> .' The ES should provide specific reference any guidance or practice that is used.
3.6.4	N/A	Cumulative Effects	The ES should consider the potential for cumulative impacts at a regional scale with other plans and projects that result in a reduction of available BMV land.

### 3.7 Glint and Glare

(Scoping Report Section 7.9)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.7.1	7.9.20	Effects during decommissioning phase	<p>The Applicant proposes to scope out effects during the decommissioning phase, stating that these effects will be of lesser significance than during operation as fewer of the solar panels will be in place.</p> <p>The Inspectorate agrees that, on the basis that the decommissioning phase is unlikely to result in glint and glare effects greater than those of the operational phase, this matter can be scoped out of the assessment.</p>

ID	Ref	Description	Inspectorate's comments
3.7.2	3.1.7	Worst case scenario	<p>Paragraph 3.1.7 of the Scoping Report notes that either fixed or tracker mounting structures could be used for the solar arrays. Given that the two different mounting structures are likely to lead to different glint and glare effects, the ES should present the worst-case assessment for both options.</p>
3.7.3	7.9.10	Study area	<p>The Scoping Report highlights that only railway receptors within 500m of the solar panel area will be included within the assessment.</p> <p>The ES should justify this as an appropriate study area, explaining why no significant effects from glint and glare would occur beyond 500m on railway users.</p>



### 3.8 Climate Change Impact Assessment

(Scoping Report Section 7.10)

<b>ID</b>	<b>Ref</b>	<b>Applicant's proposed matters to scope out</b>	<b>Inspectorate's comments</b>
3.8.1	7.10.19	Climate change effects on decommissioning and construction	The Inspectorate agrees that temperature change, sea level rise, changes in precipitation, storm surges and wind speed as a result of climate change are unlikely to give rise to significant effects on the construction and decommissioning phases of the Proposed Development. Therefore, the Inspectorate is content to scope this matter out, however the ES project description should explain how the development has been designed to be resilient to such effects.
3.8.2	7.10.19	Indirect effects of climate change	The Inspectorate considers that the indirect effects of climate change, such as political conflicts caused or triggered by climate change leading to changes in the supply chain or changes in the energy market, are unlikely to give rise to significant effects and may be scoped out from further assessment.

<b>ID</b>	<b>Ref</b>	<b>Description</b>	<b>Inspectorate's comments</b>
3.8.3	7.10.15	Carbon emissions associated with decommissioning phase	The Scoping Report states that carbon emissions associated with the construction phase of the Proposed Development are to be scoped into the EIA. However, the Scoping Report does not include the same commitment for the decommissioning phase. The ES should include an assessment of Greenhouse Gas (GHG) emissions during the decommissioning phase of the Proposed Development.
3.8.4	7.10.17	GHG emissions associated with operational phase	The Scoping Report states that GHG emissions emitted by the Proposed Development will be offset by the production of cleaner energy generated. The ES should include an assessment of the GHG

ID	Ref	Description	Inspectorate's comments
			emissions associated with the operational phase of the Proposed Development.
3.8.5	N/A	Carbon and economic impact of changing land use	The Inspectorate does not consider that impacts on the economy or to carbon emissions resulting from a proposed change from arable to low intensity farming and/or the transportation/import of food and crops are likely to result in significant effects. On this basis, consideration of such effects in the EIA is not considered necessary.

### 3.9 Socio Economics

(Scoping Report Section 7.11)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.9.1	7.11.24 to 7.11.25	Local Tourism Economy	<p>The Applicant proposes to scope out effects of the Proposed Development on the local tourism economy as the main publicly accessible tourism assets are located approximately 2.3km from the site, including the Burghley House RPG.</p> <p>The Burghley House RPG is located within the ZTV, as noted in paragraph 7.11.25. Therefore, there is potential for adverse visual effects on a local tourism asset. In the absence of information to the contrary or evidence demonstrating clear agreement with relevant consultation bodies, the Inspectorate is not in a position to agree to scope these matters out of the assessment.</p>
3.9.2	7.11.26	Amenity and Recreation	<p>The Applicant proposes to scope out effects on amenity and recreation, including effects on two Public Rights of Way (PRoWs) that traverse across the site. The Scoping Report states that the PRoWs will be retained within the 30m landscape buffer and only a temporary diversion may be required during the construction phase.</p> <p>The Inspectorate does not agree that this matter can be scoped out. The ES should explain what consideration has been given to mitigating the effect of the Proposed Development on the experience of footpath users. The Applicant should agree relevant mitigation measures with the Local Planning Authority, where possible.</p>

### 3.10 Topics to be Scoped Out

(Scoping Report Chapter 8)

ID	Ref	Applicant's proposed aspects to scope out	Inspectorate's comments
3.10.1	8.1	Cultural Heritage – Archaeology	<p>The Applicant proposes to scope out cultural heritage on the basis that the nature of the Proposed Development means that significant effects are unlikely to occur.</p> <p>The Scoping Report states that as the Proposed Development involves minimal ground-disturbing activity there is unlikely to be a significant effect on archaeological remains.</p> <p>However, the PV panel frames will be pile driven into the ground and grid connection cables will involve underground cabling, including digging trenches up to 1.3m deep (as noted in paragraph 3.1.23), as well as digging involved in installation of the perimeter fencing and security measures. Furthermore, it is noted in paragraph 8.1.11 that <i>"the potential extent and heritage significance of buried archaeological remains is being investigated by additional desk-based research...and geophysical survey"</i>.</p> <p>As such, it is considered that the extent of archaeological remains is unknown at this stage. Considering the Proposed Development does involve ground disturbing activity and the extent of archaeological assets is yet to be established, the Inspectorate is of the opinion that desk-based survey and geophysical survey should be undertaken as a minimum and the need for selective trial trenching should be established with the relevant local authority archaeologists.</p>
3.10.2	8.1	Cultural Heritage – Heritage Assets	<p>Effects on heritage assets are proposed to be scoped out on the basis that any changes are <i>"not sufficient to cause significant effects to their heritage significance"</i>. However, paragraph 8.1.18 states that a 'settings assessment' for designated heritage assets is yet to be</p>

ID	Ref	Applicant's proposed aspects to scope out	Inspectorate's comments
			<p>conducted. Considering the proximity of some of the heritage assets to the Proposed Development site, and the absence of evidence to suggest that the Proposed Development will not affect the heritage setting of such assets, the Inspectorate considers that this aspect cannot be scoped out at this stage.</p> <p>It is also noted (in Table 10.1) that construction and decommissioning effects for historic buildings and landscape are considered not applicable. However, as the Inspectorate does not agree that heritage assets can be scoped out, the ES should include an assessment for all phases of the Proposed Development unless justified within the ES and agreed with relevant consultation bodies.</p>
3.10.3	8.2	Air Quality	<p>The Scoping Report does provide an indication of vehicle movements required; however, the Inspectorate does not agree to this aspect being scoped out during construction without full information on traffic baseline and traffic impacts and impacts from plant machinery being provided. The ES should consider the potential for likely significant effects on human and non-human receptors during construction.</p>
3.10.4	8.3	Arboriculture	<p>The Applicant proposes to scope out arboriculture from the ES. Arboricultural effects would be considered within a standalone Arboricultural Impact Assessment. The Inspectorate agrees with this approach provided that any likely significant effects are reported in the ES.</p>
3.10.5	8.4	Major Accidents and/or Disasters	<p>A standalone chapter for Major Accidents and Disasters is not proposed on the basis that this aspect is addressed within other Chapters of the ES, namely Access and Highways, Glint and Glare, Water Resources and Ground Conditions. Additionally, paragraph 8.4.10 states that the ES will detail measures incorporated into the</p>

ID	Ref	Applicant's proposed aspects to scope out	Inspectorate's comments
			<p>design to minimise potential impacts relating to fire from the Proposed Development. The Inspectorate has considered the characteristics of the Proposed Development and agrees with this approach.</p> <p>The Inspectorate notes however that an outline Battery Safety Management Plan is also proposed to be submitted as part of the draft DCO application. The Inspectorate considers that the risk of battery fire/explosion should be addressed in the ES, including where any measures designed to minimise impacts on the environment in the event of such an occurrence are secured.</p>
3.10.6	8.5	Human Health	<p>A standalone chapter for Human Health is not proposed on the basis that the Proposed Development would be designed and maintained to operate safely and where there are interactions with human health these will be considered within other aspect chapters of the ES as listed in paragraph 8.5.2. The Inspectorate agrees with this approach.</p>
3.10.7	8.5	Electromagnetic Fields (EMF)	<p>The Applicant proposes to scope out EMF on the basis that the export cable and existing substation are the only elements of the Proposed Development that exceed 132kV and these are located approximately 500m from residential dwellings, therefore the potential for EMF effects are limited.</p> <p>In line with relevant guidance (DECC Power Lines: Demonstrating compliance with EMF public exposure guidelines, A Voluntary Code of Practice 2012), cables above 132kV have potential to cause EMF effects. The Inspectorate considers that the ES should demonstrate the design measures taken to avoid the potential for EMF effects on receptors from the cable and substation infrastructure.</p>
3.10.8	8.6	Waste	<p>Solar developments are typically considered to be 30 to 40 year developments with panel degradation cited as a limiting factor on</p>

ID	Ref	Applicant's proposed aspects to scope out	Inspectorate's comments
			<p>project lifespan. On this basis, the Inspectorate considers that some panels may need to be replaced during the operational life of the project. The Scoping Report states that waste during construction and decommissioning would be recycled in line with good practice and market conditions. However, it does not address the potential for component replacement during operation. The ES should include an assessment of the likely impact of component replacement (e.g. batteries and panels) and outline what measures, if any, are in place to ensure that these components are able to be diverted from the waste chain. The ES should assess the likely significant effects from waste at decommissioning to the extent possible at this time. The Scoping Report states that a Decommissioning Plan will be agreed with the Local Planning Authority. The Inspectorate would expect to see this secured through the inclusion of an Outline Decommissioning Plan, or similar, submitted with the Application. The ES should clearly set out how decommissioning is to be assessed and any components which may remain following decommissioning.</p> <p>The ES should also consider the requirement for cumulative impacts to be assessed at decommissioning due to a number of solar farms in the local area also likely to be decommissioning in a similar timescale.</p>



## APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED

**TABLE A1: PRESCRIBED CONSULTATION BODIES<sup>1</sup>**

<b>SCHEDULE 1 DESCRIPTION</b>	<b>ORGANISATION</b>
The Health and Safety Executive	Health and Safety Executive
The National Health Service Commissioning Board	NHS England
The relevant Clinical Commissioning Group	NHS Lincolnshire Clinical Commissioning Group
	NHS East Leicestershire and Rutland Clinical Commissioning Group
Natural England	Natural England
The Historic Buildings and Monuments Commission for England	Historic England
The relevant fire and rescue authority	Leicestershire Fire and Rescue Service
	Lincolnshire Fire and Rescue Service
The relevant police and crime commissioner	Lincolnshire Police and Crime Commissioner
	Leicestershire Police and Crime Commissioner
The relevant parish council(s)	Essendine Parish Council
	Great Casterton Parish Council
	Little Casterton Parish Council
	Ryhall Parish Council
	Tickencote Parish Council
	Pickworth Parish Council
	Uffington Parish Council

<sup>1</sup> Schedule 1 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (the 'APFP Regulations')

<b>SCHEDULE 1 DESCRIPTION</b>	<b>ORGANISATION</b>
	Careby Aunby and Holywell Parish Council
	Greatford Parish Council
	Braceborough and Wilsthorpe Parish Council
	Carlby Parish Council
The Environment Agency	The Environment Agency
The Civil Aviation Authority	Civil Aviation Authority
The Relevant Highways Authority	Rutland (Highways)
	Lincolnshire County Council (Highways)
The relevant strategic highways company	National Highways (formerly Highways England)
The relevant internal drainage board	Black Sluice Internal Drainage Board
	Upper Witham Internal Drainage Board
	Welland and Deppings Internal Drainage Board
UK Health Security Agency	UK Health Security Agency
The Forestry Commission	The Forestry Commission East & East Midlands

**TABLE A2: RELEVANT STATUTORY UNDERTAKERS<sup>2</sup>**

<b>STATUTORY UNDERTAKER</b>	<b>ORGANISATION</b>
The relevant Clinical Commissioning Group	NHS Lincolnshire Clinical Commissioning Group
	NHS East Leicestershire and Rutland Clinical Commissioning Group

<sup>2</sup> 'Statutory Undertaker' is defined in the APFP Regulations as having the same meaning as in Section 127 of the Planning Act 2008 (PA2008)

<b>STATUTORY UNDERTAKER</b>	<b>ORGANISATION</b>
The National Health Service Commissioning Board	NHS England
The relevant NHS Trust	East Midlands Ambulance Service NHS Trust
The relevant NHS Foundation Trust	North West Anglia NHS Foundation Trust
Railways	Network Rail Infrastructure Ltd
	Highways England Historical Railways Estate
	London & Continental Railways Ltd
Civil Aviation Authority	Civil Aviation Authority
Licence Holder (Chapter 1 Of Part 1 Of Transport Act 2000)	NATS En-Route Safeguarding
Universal Service Provider	Royal Mail Group
Homes and Communities Agency	Homes England
The relevant Environment Agency	The Environment Agency
The relevant water and sewage undertaker	Anglian Water
The relevant public gas transporter	Cadent Gas Limited
	Last Mile Gas Ltd
	Energy Assets Pipelines Limited
	ES Pipelines Ltd
	ESP Networks Ltd
	ESP Pipelines Ltd
	ESP Connections Ltd
	Fulcrum Pipelines Limited
	Harlaxton Gas Networks Limited
	GTC Pipelines Limited

STATUTORY UNDERTAKER	ORGANISATION
	Independent Pipelines Limited
	Indigo Pipelines Limited
	Leep Gas Networks Limited
	Murphy Gas Networks limited
	Quadrant Pipelines Limited
	Squire Energy Limited
	National Grid Gas Plc
	Scotland Gas Networks Plc
	Southern Gas Networks Plc
The relevant electricity distributor with CPO Powers	Eclipse Power Network Limited
	Energy Assets Networks Limited
	ESP Electricity Limited
	Forbury Assets Limited
	Fulcrum Electricity Assets Limited
	Harlaxton Energy Networks Limited
	Independent Power Networks Limited
	Indigo Power Limited
	Last Mile Electricity Ltd
	Leep Electricity Networks Limited
	Murphy Power Distribution Limited
	The Electricity Network Company Limited
	UK Power Distribution Limited
	Utility Assets Limited
Vattenfall Networks Limited	

STATUTORY UNDERTAKER	ORGANISATION
	Western Power Distribution (East Midlands) plc
The relevant electricity transmitter with CPO Powers	National Grid Electricity Transmission Plc
	National Grid Electricity System Operator Limited

**TABLE A3: SECTION 43 LOCAL AUTHORITIES (FOR THE PURPOSES OF SECTION 42(1)(B))<sup>3</sup>**

LOCAL AUTHORITY <sup>4</sup>
Cambridgeshire County Council
Harborough District Council
Leicestershire County Council
Lincolnshire County Council
Melton District Council
Newark and Sherwood District Council
Norfolk County Council
North East Lincolnshire Council
North Kesteven District Council
North Lincolnshire Council
North Northamptonshire Council
Nottinghamshire County Council
Peterborough City Council
Rutland Council

<sup>3</sup> Sections 43 and 42(B) of the PA2008

<sup>4</sup> As defined in Section 43(3) of the PA2008

**LOCAL AUTHORITY<sup>4</sup>**

South Holland District Council

South Kesteven District Council

## **APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES**

<b>CONSULTATION BODIES WHO REPLIED BY THE STATUTORY DEADLINE:</b>
Anglian Water
The Environment Agency
Essendine Parish Council
The Forestry Commission East & East Midlands
Greatford Parish Council
Health and Safety Executive
Historic England
Lincolnshire County Council
National Grid Electricity Transmission PLC and National Grid Gas PLC
National Highways
NATS En-Route Safeguarding
Network Rail Infrastructure Ltd
Newark and Sherwood District Council
North-East Lincolnshire Council
North Kesteven District Council
North Lincolnshire Council
North Northamptonshire Council
Peterborough City Council
Pickworth Parish Council
Rutland Council
South Kesteven District Council
Uffington Parish Council
UK Health Security Agency





**Anglian Water Services**

Thorpe Wood House  
Thorpe Wood  
Peterborough  
PE3 6WT

Katherine King  
Senior EIA Advisor  
The Planning Inspectorate

www.anglianwater.co.uk  
Our ref ScpR.MPS.NSIP.22.ds

[MallardPassSolar@planninginspectorate.gov.uk](mailto:MallardPassSolar@planninginspectorate.gov.uk)

1 March 2022

Dear Katherine

### **Mallard Pass Solar Farm - EIA Scoping Report consultation**

Thank you for the opportunity to comment on the scoping report for the above project which is both in Rutland Council and South Kesteven District.

Anglian Water is the appointed water and sewerage undertaker for the site shown on Figure 2.1. The following response is submitted on behalf of Anglian Water in its statutory capacity and relates to potable water and water assets along with wastewater and water recycling assets. We would consider that Anglian Water should be included on the list of consultees to be drawn up by the applicant to follow their proposed approach to assessment and consultation in Chapter 4. We note that Anglian Water is not listed as one of stakeholders where consultation has already taken place (paragraph 4.3.1).

#### Engagement, the draft DCO Order and assisting the applicant

Anglian Water would welcome the instigation of discussions with Mallard Pass Solar Farm Limited prior to the project layout and initial design fix for the onshore infrastructure and to assist the applicant before the submission of the Draft DCO for examination. The intention to consult at the statutory consultation stage (paragraphs 4.5.2) would appear to be too late to inform design and may result in delays to the project. We would recommend discussion on the following issues:

1. The Draft DCO Order including protective provisions specifically to ensure Anglian Water's services are maintained during construction
2. Requirement for potable and raw water supplies
3. Requirement for wastewater services
4. Impact of development on Anglian Water's assets and the need for mitigation
5. Pre-construction surveys

Registered Office  
Anglian Water Services Ltd  
Lancaster House, Lancaster Way,  
Ermine Business Park,  
Huntingdon,  
Cambridgeshire. PE29 6XU  
Registered in England

- Anglian Water

Anglian Water works to support the construction and operation of national infrastructure projects are conducted in accordance with the Water Industry Act 1991. We would expect that the Environmental Statement would include reference to existing water supply and water recycling infrastructure managed by Anglian Water and the provision of replacement infrastructure and the requirements for new infrastructure. Maps of Anglian Water's assets are available to view at the following address:

<http://www.digdat.co.uk/>

- The Scheme – Existing infrastructure

There are existing Anglian Water assets including water mains within the site and water and wastewater infrastructure including rising mains near the site or within roads which serve the site and the surrounding villages and Stamford. These are principally located in and near the communities of Carlby, Essendine, Ryhall and Great Casterton. Anglian Water works with developers including those constructing projects under the 2008 Planning Act to ensure requests for alteration of sewers, wastewater and water supply infrastructure is planned to be undertaken with the minimum of disruption to the project and customers. We welcome the intention to draw up a Water and Construction Management Plan.

Rutland Water is owned and operated by Anglian Water. We note at paragraphs 2.6.3 and 2.6.4 that the project will assess the impacts on Rutland Water as designated SPA and Ramsar sites important for ecology. With regards to consultation on the impacts on Rutland Water (paragraph 7.4.116), Anglian Water requests that we are included in consultation of ecology officers including the conclusions of the Councils and ecology bodies on whether impacts can be scoped out for Rutland Water.

With regards to socio economic impacts, Rutland Water is an important visitor attraction (paragraph 7.11.6) as well as serving the local community and providing employment. We agree that the study area (paragraph 7.11.18 considering socio -economic effects should be the local Council areas and this will include Rutland Water.

At page 25, paragraph 2.9.3 the report refers to groundwater and the Source Protection Zones within the site. Section 7.7 of the report considers Water Resources. Paragraph 7.7.12 advises that public and private water supplies will be considered in the ES. Anglian Water notes the reference to the River Welland and requests that the ES set out any potential impacts on Anglian Waters abstraction locations on the river and the related water treatment and supply network.

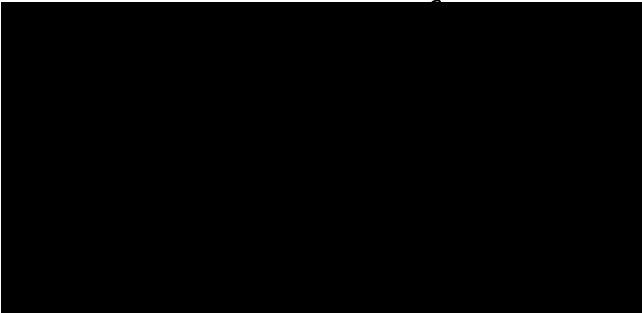
To minimise the carbon cost of the project the design and construction of the project should minimise and if possible, avoid the need to move the water supply and water recycling network. If this is not possible then Protective Provisions will be required to protect the supply of water and management of wastewater for local communities by Anglian Water. Similarly, the proposed transmission network infrastructure should avoid existing utilities including water and sewerage pipelines.

We note that at paragraph 7.7.29 that the FRA will calculate the size of SuDS to manage surface water runoff. No reference is made to the need for connection to the public sewer network. At paragraph 7.7.31 reference is made to run off from hardstandings. Anglian Water requests confirmation that no connection is required to the public sewer network for construction including site compounds and welfare facilities or operational buildings (paragraph 3.1.22) or activities.

Anglian Water recommends that the Environmental Statement should include reference to identified impacts on water supply, the sewerage network and sewage treatment both during construction and operation. Operational impacts may include the crossing of pipelines and plant and vehicles undertaking maintenance, for example. Further advice on water and wastewater capacity and options – should they be required - can be obtained by contacting Anglian Water's Pre-Development Team [planningliaison@anglianwater.co.uk](mailto:planningliaison@anglianwater.co.uk).

Please do not hesitate to contact me should you require clarification on the above response or during the pre- application to decision stages of the project.

Yours sincerely,



Darl Sweetland MRTPI  
Spatial Planning Manager

Cc

[info@MallardPassSolar.co.uk](mailto:info@MallardPassSolar.co.uk)



Ms Katherine King  
Planning Inspectorate  
Environmental Services  
Central Operations  
Temple Quay House  
2 The Square  
Bristol  
BS1 6PN

**Our ref:** AN/2022/132755/01-L01  
**Your ref:** EN010127  
**Date:** 07 March 2022

(By email only to [MallardPassSolar@planninginspectorate.gov.uk](mailto:MallardPassSolar@planninginspectorate.gov.uk))

Dear Ms King

**Application by Mallard Pass Solar Farm Limited (the applicant) for an Order granting Development Consent for the Mallard Pass Solar Project (the proposed development) - Scoping Consultation  
Rutland and South Kesteven, TF052115**

Thank you for consulting us regarding the above Environmental Impact Assessment Scoping Request, on 7 February 2022.

We have reviewed the submitted Scoping Report dated February 2022 and provide comments below on the following comments topics that fall within the Environment Agency's remit:

- Ecology and biodiversity
- Water resources and ground conditions
- Climate change impact assessment
- Risk of major accidents and/or disasters

**Section 7.4: Ecology and biodiversity**

Table 10.1 shows that impacts on habitats and most biodiversity classes have been scoped into the assessment during construction and decommissioning phases but out during the operation phase. We accept this.

Of particular relevance to the Environment Agency is the West Glen River, the presence and importance of which is acknowledged in this section.

7.4.7 refers to field surveys and the Ecological Baseline report in Appendix 7.2. We note there is no reference to baseline surveys relating to Water Framework Directive classification, specifically invertebrates and fish, which should be completed before work starts.

7.4.25 notes the habitats of the West Glen and its banks but notes that detailed surveys have not been undertaken.

7.4.63 notes that the river may support notable aquatic species.

7.4.81 confirms the aim to deliver at least 10% gain in biodiversity value, which we welcome. Opportunities should be sought in a range of habitats; this links to the consideration of green infrastructure in section 3.2 and 7.3, understood to include 'blue' infrastructure such as the river, surface drains and ponds.

### **Section 7.7: Water resources and ground conditions**

We understand that water resources and ground conditions have been scoped into the Environmental Statement and agree with this.

#### Land contamination

We recommend that a Phase I or Preliminary Risk Assessment for land contamination is included in the Environmental Statement to assess any potential risk posed to groundwater or surface water.

As the site is predominantly greenfield, we consider the site is likely to pose low risk to controlled waters; however, development should be in accordance with the following guidance:

We recommend that developers should:

- Follow the risk management framework provided in 'Land contamination: risk management' when dealing with land affected by contamination
- Refer to our Guiding principles for land contamination for the type of information that we require in order to assess risks to controlled waters from the site – the local authority can advise on risk to other receptors, such as human health
- Consider using the National Quality Mark Scheme for Land Contamination Management which involves the use of competent persons to ensure that land contamination risks are appropriately managed
- Refer to the contaminated land pages on gov.uk for more information

#### Flood risk

Solar farms are classified as 'essential infrastructure' in relation to flood risk vulnerability.

As the site is largely Flood Zone 1, the proposal raises little concern in relation to fluvial flood risk.

However, the River West Glen, a main river, does run through the site, with a narrow corridor of associated Flood Zones 2 and 3. We would therefore expect a full flood risk assessment to be carried out, as confirmed in sections 7.7.17 and 7.7.28-30. This must cover all sources of flood risk and management of surface water runoff; however, the Environment Agency's role is to advise on fluvial risk only.

We recommend that the developer avoids siting solar panels within Flood Zone 3 throughout the site, to protect the floodplain and the development itself.

We agree with the proposed buffer strip between the river and proposed solar panel development, as set out in section 3.2.2 of the report. Any works within 8m of the river will require a flood risk activity permit (please see below).

The Environmental Permitting (England and Wales) Regulations 2016 require a permit or exemption to be obtained for any activities which will take place:

- on or within 8 metres of a main river (16 metres if tidal)
- on or within 8 metres of a flood defence structure or culverted main river (16 metres if tidal)
- on or within 16 metres of a sea defence
- involving quarrying or excavation within 16 metres of any main river, flood defence (including a remote defence) or culvert
- in a floodplain more than 8 metres from the river bank, culvert or flood defence structure (16 metres if it's a tidal main river) and you don't already have planning permission For further guidance please visit <https://www.gov.uk/guidance/flood-risk-activities-environmental-permits> or contact our National Customer Contact Centre on 03708 506 506 (Monday to Friday, 8am to 6pm) or by emailing [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk).

The applicant should not assume that a permit will automatically be forthcoming once planning permission has been granted, and we advise them to consult with us at the earliest opportunity.

#### Water quality

Notwithstanding the outcome of the Water Framework Directive screening assessment proposed in section 7.7.32, we would like the EIA to investigate how the development could *improve* the WFD status of the West Glen, not just avoid deterioration.

Note: 7.7.40 states that consultation has been undertaken with the Environment Agency to agree the approach to assessment for water resources and ground conditions. We are aware only of some consultation regarding flood risk mitigation.

A suitable strategy will be required for disposal of foul flows from staff amenity facilities during the construction phase – and during operation if the site will be staffed.

#### **Section 7.10: Climate change impact assessment**

We agree that climate change impact should be scoped into the EIA. Sections 7.10.2 and 7.10.10 confirm that both the vulnerability and the impact of the proposed development will be considered, during the construction and operational phases.

#### **Section 8.4: Risk of major accidents and/or disasters**

Sections 8.4.10 states that 'The ES will include details on the measures incorporated into the design to minimise any potential impact of Proposed Development resulting from a fire. As such, a separate ES chapter covering risk from fire accidents is not considered necessary. 8.4.11 states that battery fire risk will be covered under the "Outline Battery Safety Management Plan". That may be so, but we would want the ES to include an assessment of the risk to the environment and potable water supply abstraction at Wilsthorpe, as battery fires on such sites are high risk and difficult to control.

The comments we set out above are without prejudice to future decisions we make regarding any applications subsequently made to us for permits for operations at the site.

Yours sincerely



**Nicola Farr**  
**Sustainable Places - Planning Specialist**





## Essendine Parish Council

Essendine Village Hall  
10 Bourne Road  
Essendine  
Stamford  
PE9 4LQ

Email; clerk@essendinepc.org.uk

Chairman Essendine Parish Council



To.  
The Planning Inspectorate.  
Environmental Services  
Central Operations  
Temple Quay House  
2 The Square  
Bristol.  
BS1 6PN

Your Ref: EN010127

4th March 2022

Response to Planning Inspectorate request dated 7 February 2022.

Subject EN010127 – Mallard Pass Solar Project – EIA Scoping Notification and Consultation

Dear Sirs,

your email dated 7 February 2022 requested that Essendine Parish Council, as a consultation body, provide the following.

“Inform the Planning Inspectorate of the information you consider should be provided in the ES”

Please find below the response from Essendine Parish Council.

Given the size of this proposed (2000+ acres) solar plant and the dominating affect it will have over the human population and the ecology, flora, fauna, wildlife and biodiversity

nothing should be scoped out of the Environmental Statement relating to the proposed development.

It is important that all information positive and or negative is presented to the population, local authorities and regulatory authorities to allow them to make informed balanced decisions and ask informed questions based upon all information and data.

Section 10.1.3 of the Mallard Pass Solar Farm Scoping Document dated February 2022 states

“...it is therefore proposed that the following topics are scoped out of the EIA:

Cultural Heritage;  
Air Quality;  
Arboriculture;  
Socio-economics;  
Major Accidents and/or Disasters;  
Human Health, including Electro Magnetic Fields; and  
Waste”

It is not acceptable that these items are scoped out of the EIA or ES Environmental Statement.

Please see attached four appendices.

**Appendix A. Table 10.1 page 230 to 240 of the PDF Environmental Impact Assessment Scoping Request February 2022 document provided by Mallard Pass Solar Farm**

**Appendix B. Information and questions to be answered that have been requested by the residents of Essendine that should be included in the Mallard Pass Solar Farm Environmental Statement.**

**Appendix C. Questions requiring answers in the Environmental Statement which arise from the Mallard Pass Solar Farm. Environmental Impact assessment Scoping Opinion Request. February 2022.**

**Appendix D. Comments received from residents of Essendine.**

It can be seen from the information contained within this document that numerous areas are thought very important and of concern to local residents, are to be Scoped Out. Essendine Parish Council believe this is unacceptable and would ask that Mallard Pass be required to Scope In these items to acknowledge the very real fears of local people for their health and their environment.

Yours Sincerely

Trevor Burfield  
Chairman  
Essendine Parish Council

## Appendix A

### Table 10.1 page 230 to 240 of the PDF document provided by Mallard Pass Solar Farm

This table identifies the subjects that are proposed to be scoped in and or out of the EIA.

It is not acceptable that any items are Scoped out of the EIA or Environmental Statement at any point of the three phases of Construction, Operation or Decommissioning.

Please see screen shots below from Pages 230 to 240 of the Mallard Pass Solar Farm (PDF document) Scoping Report February 2022, these tables identify what Mallard Pass Solar Farm identify as being in or out of scope. The items Mallard Pass have identified as being out of scope are identified with a red ring.

Key points to note.

Subjects that Mallard Pass Solar Farm do not propose to include in their Environmental Statement at all (see table 10.1) in relation to the construction, operation or decommissioning phase are identified below.

The residents of Essendine wish to see all of these subjects included in the Mallard Pass Solar Farm Environmental Statement.

Human Health – Impacts to human health  
Noise from traffic and vibration effects during operation  
Impacts from waste generation

Residential Amenity  
Recreation and Amenity

Hazardous Loads  
Impacts from major flooding or fire events or from transport accidents

Exposure of existing sensitive human receptors to elevated pollutant concentrations  
(emissions from vehicle exhausts and combustions source)  
Exposure of existing sensitive ecological receptors to elevated nitrogen deposition  
(emissions from vehicle exhausts and combustion sources)  
Exposure of existing sensitive human and ecological receptors to fugitive dust emissions

Impact to trees  
Impact on Amenity and Recreation  
Impact on Tourism.

Table 10.1: Summary of EIA Scope

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	Visual Effects: Residents, Visitors, Users of PRoW, Macmillan Way Long Distance Footpath, Local Roads and East Coast Main Line Railway	In	In	In
Landscape and Visual (effects within a 2km Study Area)	Rutland Local Landscape Character Areas:			
	Rutland Plateau - Clay Woodlands (Dii) LCA	In	In	In
	Rutland Plateau - Gwash Valley (Dii) LCA			
	South Kesteven Landscape Character Areas: Kesteven Uplands LCA	In	In	In
	Peterborough City Council Landscape Character Areas:	Out	Out	Out

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Nothing should be out of scope.

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
Nessburgh Undulating Limestone				
Welland Valley				
	Burley House Grade II* RPG	In	In	In
	Settlements / Villages	In	In	In
	Residential Amenity	Out	Out	Out
	Recreation and Amenity	Out	Out	Out
	Statutory designated sites - adverse impacts to sites through habitat loss	In	Out	In
Ecology and Biodiversity	Statutory designated sites - adverse impacts to site integrity through loss of supporting habitat	Out	Out	Out

1982, Oct. 2021 Mollard Pass EIA Scoping Report

Nothing should be out of scope.

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	Statutory and non-statutory sites - adverse impacts to sites through accidental damage / pollution	In	Out	In
	Habitats - Loss of valuable habitats including damage to HPis	In	Out	In
	Bats (foraging) – Habitat loss	In	Out	In
	Bats (roosting) – Damage to roosts	In	Out	In
	Badgers - Damage to setts and foraging habitat	In	Out	In
	Water vole and otter - Habitat loss and damage to resting places	In	Out	In

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Nothing should be out of scope.

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	Hazel dormouse - Habitat loss /degradation; damage to resting places; injuring individual dormice	In	Out	In
	Other SPI mammals - Loss of habitat / habitat degradation	In	Out	In
	Breeding birds – Damage to nests during vegetation management/removal	In	Out	In
	Breeding birds (skylark, lapwing and yellow wagtail) – Habitat loss	In	Out	In
	Breeding birds (other species) – Habitat loss	In	Out	In
	Wintering birds – Habitat loss	In	In	Out
	Reptiles - Habitat loss	In	Out	In

1962\_214\_2017 Mallard Pass EIA Scoping Report

Nothing should be out of scope.



Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	Reptiles – Injury or death to individual reptiles	In	Out	In
	Amphibians – Habitat loss	In	Out	In
	Amphibians – Injury or death to individual GCN	In	Out	In
	Invertebrates – Habitat loss	In	Out	In
Access and Highways	Severance	In	Out	Out
	Driver Delay	In	Out	Out
	Pedestrian Delay	In	Out	Out
	Pedestrian and Cyclist Amenity	In	Out	Out
	Fear and Intimidation	In	Out	Out

1962\_04\_0001 Mollard Pass EIA Screening Report

Nothing should be out of scope.

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	Accidents and Road Safety	In	Out	Out
	Hazardous Loads	Out	Out	Out
Noise and Vibration	Noise and vibration from construction activities and associated traffic on neighbouring residential receptors	In	Out	Out
	Noise from plant during operation on neighbouring residential receptors	Out	In	Out
	Noise from traffic and vibration effects during operation	Out	Out	Out
Water Resources and Ground Conditions	Increase in surface water run-off from areas of handstanding	In	In	In
	Ensuring the Proposed Development is safe from water ingress for its lifetime in the event	In	In	In

Table 6.6: 2021 Mallard Pass EIA Screening Report

Nothing should be out of scope.

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	of flooding, without increasing flood risk elsewhere			
	Potential impediment to drainage ditch flow as a result of crossings	In	In	In
	Potential transfer of sediment to surface water resources	In	Out	In
	Potential transfer of chemicals to surface water resources	In	Out	In
	Potential affects on public water supply	Out	In	Out
Land Use	Temporary (long-term) loss of land of BMV quality	In	In	In
	Temporary (long-term) loss of land of poorer quality	In	In	In

1912\_24\_2021 Mollard Pass EIA Flooding Report

Nothing should be out of scope.

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	Impact on farm businesses	In	In	In
Glint and Glare	Reflected sunlight from the solar panels causing a nuisance or a safety hazard to surrounding observers	In	In	Out
	The vulnerability of the Proposed Development to climate change	Out	In	Out
Climate Change Impact Assessment	The influence of the Proposed Development on climate change	In	In	In
	Changes to the future baseline of other environmental aspects as a result of climate change	In	In	In
	Indirect effects of climate change, such as political conflicts caused or triggered by	Out	Out	Out

1882\_014\_1001 Mallard Pass EIA Scoping Plan

Nothing should be out of scope.

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	climate change leading to changes in the supply chain or changes in the energy market.			
	Carbon emissions generated by the Proposed Development	In	In	In
Cultural Heritage	Buried archaeological remains	Out	N/A	N/A
	Historic buildings, monuments and structures (designated)	N/A	Out	N/A
	Historic landscape (designated and non-designated landscape)	N/A	Out	N/A
Air Quality	Exposure of existing sensitive human receptors to elevated pollutant concentrations (emissions from vehicle exhausts and combustion sources)	Out	Out	Out

2002\_034\_2011 Mallard Pass EIA Screening Report

Nothing should be out of scope.

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
	Exposure of existing sensitive ecological receptors to elevated nitrogen deposition (emissions from vehicle exhausts and combustion sources)	Out	Out	Out
	Exposure of existing sensitive human and ecological receptors to fugitive dust emissions	Out	Out	Out
Arboriculture	Impact to trees	Out	Out	Out
	Impact on employment	In	In	In
Socio-economics	Impact on Amenity and Recreation	Out	Out	Out
	Impact on Tourism	Out	Out	Out
Risk of Major Accidents and/or Disasters	Impacts from major flooding or fire events or from transport accidents	Out	Out	Out

198 334 2017 Mallard Pass EIA Scoping Report

Nothing should be out of scope.

Environmental Topic	Effect	EIA Scope (In or Out)		
		Construction Phase	Operation Phase	Decommissioning Phase
Human Health	Impacts to human health	Out	Out	Out
Waste	Impacts from waste generation	Out	Out	Out

Nothing should be out of scope.



## **Appendix B**

### **Information and questions to be answered that have been requested by the residents of Essendine that should be included in the Mallard Pass Solar Farm Environmental Statement.**

How will human health and wellbeing be affected?

How will wild animal health and wellbeing be affected?

What is the environmental impact created due to the loss of the agricultural land as food producing land?

How much food production will be lost over the lifetime of the Solar installation?

How close will any mechanical and or electrical equipment, fence, gate, light or camera be to any house, when the proposed Solar Farm is complete?

Will all vehicles be washed of soil and debris before leaving the construction area?

Will the roads be swept very regularly to keep mud off the roads?

Battery fire or damage what emergency plans will exist to manage such a disaster?

Solar Panel fire or damage what emergency plans will exist to manage such a disaster?

What communication methods will be put in place to alert residents of a battery fire?

What will the funnelling effect of the deer be? There are multiple herds of deer roaming freely within the area how will you stop the deer being funnelled onto the road and creating accidents?

What is the decommissioning/end of life plan for the solar panels and the infrastructure?

What noise will be generated by the solar panels whilst operating?

What noise will be generated when rain falls on the solar panels?

How will the air quality be affected?

How much traffic noise will be generated during construction?

How much light pollution will be generated during construction?

Where will the temporary construction compounds be sited?

How big will the construction compounds be?

What will the construction hours of operation be during the construction phase?

What days will the construction operate on?

Where will the vehicles of 400 construction workers be parked each day?

Where will the civil engineering machinery be parked?

Who will pay for (and reinstate) damage caused to paths, kerbs, verges, hedges during the construction phase?

How many cubic metres of concrete will be used in the construction?

Where will the concrete come from?

How will the concrete be delivered to the site and how will it be moved around the site?

How will you stop vehicles from breaking the weight limit regulations that exist on local roads?

What penalties will exist for offenders in the event of damage caused by speeding vehicles, damage to infrastructure, verges, hedges, breaking road width restrictions and weight limits?

Who will police these offenders?

What protocols will exist to ensure people and property is safe during periods of high winds that could potentially damage the solar panels and the solar panels subsequently become mobile during a storm?

What insurance policies exist to support the local population against damage to people and or property in the event of any claim before, during or after construction and whilst the solar farm is in operation?

How will damaged solar panels be contained to stop the material and chemicals being deposited into the ground and the water courses?

What is the carbon cost of building and operating the solar farm from now until the solar farm is decommissioned?

Carbon is already being spent to carry out surveys, consultations and investigations are you measuring and recording this carbon cost?

What temporary road widening will be require and where? How long is temporary?

Why is there no decommissioning time limit?

Effect of Solar Panel installations on racing pigeons, what is it?

10% Biodiversity gain is quoted by the developers what is the base line?

What independent body will measure the biodiversity net gain?

Biodiversity change, how will the developers stop changing the existing biodiversity to something that is not natural to the local area?

## Appendix C

**The following questions require answers and arise from the Mallard Pass Solar Farm. Environmental Impact assessment Scoping Opinion Request. February 2022. The numerical references refer to those used within the above stated document.**

2.1.1 What highways work will be required to facilitate construction traffic.

3.1.12 PV Module Mounting Structures.

How are the mounting structures “pile driven or screw mounted”?

what equipment is used,

how much noise is created,

how much disturbance e.g. Vibration to nearby housing is created,

how many piles will need to be driven in or screwed,

how long will it take to install each pile or screw or concrete base,

how many cubic metres of concrete will be used,

how will the concrete be transported to the pile driving/screwing locations?

3.1.20 What colour will the switchgear containers be?

3.1.22 Why is the substation compound so large and why is it so high?

What colour will it be?

What materials will be used to construct a structure 13metres high?

Where will this substation compound be sited?

How many people will work at this substation?

Why is a warehouse required?

3.1.29 Is the fence to be wooden or metal?

What colour will it be?

What does approximately 2m in height mean?

3.1.30 & 31 & 32 & 33 How close will the lighting be to the nearest house?

3.1.34 How many vehicles per day by vehicle type, will be accessing the primary point of access on Uffington Road, during construction phase and after construction has been completed.

3.4.2 Where are the temporary construction compounds to be sited?

How many will there be?

What size will they be?

What lighting will be used and how often?

What noise will be generated and how often?

What times will the compounds be from and to?

What days will the compounds be working?

How will the land be treated after the construction compounds are removed?

What additional access roads and tracks will be built?

3.4.8 Where will the workers vehicles be parked whilst they are on site?

How many vehicles under 3.5tonnes do you expect to have on site during the peak construction period?

How will you ensure the roads are kept free of debris and mud?

Will vehicle washing stations be installed?

3.4.10 How will the 10% biodiversity net gain be monitored and proven.  
What is the base measurement of the existing biodiversity?

Who will be the independent body confirming a 10% net gain is achieved?

When will the 10% net gain in biodiversity be achieved by?

What penalties are in place should the 10% net gain in biodiversity not be achieved?

## Appendix D

### Comments received from the residents of Essendine.

1.1.4 States the likely significant environmental impact- that's an admission that there will be significant impacts

1.2.2 States that they are involved in projects ranging from 10-320 MW- are any of those actually finished? When you actually click on the projects that Windel are involved in for the East Midlands it states 370 MW for Solar and a BESS of 400 MW. If Windel have no other areas in the East Midlands then do these figures relate to Mallard Pass- if so 370 mw is bigger than the 350 MW stated. Maybe I have missed something but the Scoping Report fails to list the actual output of this farm.

We need to know that KWH that it will produce each year and whether it generates enough electricity to supply the 92,000 homes they claim it will.

2.1.1 States that the fields included in the PV site- there are 2 fields 26 and 28 that are included on Fig 2.2 which I thought were mitigation areas.

2.4 Water and Fig 2.5 which shows the incidence of flooding events. There is a bronze hatched area that states flooding is a 1 in 20 year event- this is rubbish. I have lived here since 2016 and the West Glen has flooded every single year and often multiple times in a year.

3.1.13 Substation will be lit- possible impact of residents whose houses overlook in that direction- Glenn Crescent and the bungalows on the A 6121.

3.1.37 States batteries will be used to store and release electricity produced by panels- but will they use to trade electricity too?

3.1.38 Nos of batteries dependent on Power Capacity and could be located anywhere. We await details.

3.2.4 Net gain of 10% in Biodiversity- what base will be used to determine the increase. How will they define Biodiversity?

3.4.3 3 proposed transport routes- Route 2 through Stamford.

3.4.5 100 tonne transformer needed and may need road widening- if Route 1 used. Route 1 being Off the A1 at Casterton and then along the Ryhall road to Ryhall and Essendine.

3.4.8 30 HGV's daily- 60 total movements. 400 construction workers at peak times- how many in the same vehicles. Parking issues? In the Scoping Report for Sunnica 72 HGV deliveries are mentioned and the figures Mallard Pass have given look low and need further questioning. Also Mallard Pass need to identify vehicle movements in the 3 main areas of

the Solar Farm and those for the substation and main battery storage area especially on the minor roads

3.5 Operational life open ended. This farm could go on 40 years plus.

3.6.2 At decommissioning if it happens- site re-instated with the local authority. No guarantee here then that the land will be returned to farmland.

5.7.7 to 5.7.8 South Kesteven should assess this proposal against their guidelines listed here. RCC has no local plan which is a pity- what will they use?.

6.5.35 The EIA should list alternatives considered- RCC and SKDC should ask.

7 EIA should also cover amenity in light of Covid. Its been excluded on all fronts.

7.3.2 State photos will be taken at years 1 and 15 on visual- too late then unless further mitigation planned.

7.3.33 States that distances 1km from the site will not be impacted visually- not sure on this as I think they will. Define visibility impact!

7.3.37 Residential Amenity excluded from LVIA because the boundary has been set back considerably- how can this be stated when final plans unknown.

7.4.87 Need Mallard Pass to identify all protected species areas like badger sets etc. On Point 7.4.17 They say arable fields are of low intrinsic ecological value- take issue on this- nesting birds etc lapwings skylarks.

7.4.101 They identify months for hedge works to be done to protect birds but in all honesty during the construction phase nesting surely will be severely affected due to noise etc.

7.5.8 Automatic Traffic Counter Surveys done in October 2021. People still working from home and at the height of the HGV driver shortage so not representative of what is going on now. In point 7.6.24 they admit noise affected by Covid so surely the ATC's too but we have to be careful here because if their construction numbers are under estimated the a higher ATC count may diminish the % traffic increase and the thresholds.

7.5.15 No footpath mention re Essendine to Carlby along A 6121

7.5.42 On route 1 a sensitive receptor has been missed out- drivers at the Casterton Junction.

7.5.46 Driver delay at Casterton cross rounds could be significant and Pedestrian delay

7.5.47

7.5.48 Pedestrian and Cycle Amenity will be impacted quite significantly along the minor roads



7.5.56 Hazardous and Dangerous Loads scoped out- if Route 1 is used I fail to agree on this due to the nature of the Casterton to Ryhall road

7.6.37 Scoping noise re Construction Traffic- taken out – not sure on this especially as their quoted traffic numbers look low.

7.6.34 An admission of noise re panels and more importantly the batteries and inverters. The noise around the Ryhall Sub station could be an issue especially with a further substation and battery storage/inverters. Also I wonder if these panels will generate noise during high winds and heavy rainfall.

7.8.17 Will be interesting to see if there is more than 20ha of BMV agricultural land lost- a trigger point for Natural England to get involved. I thought further work was being done re actual land classification and certainly to highlight 3A and 3B grades

7.8.19 Reduced Agricultural income during the operational stage- what a joke with the land owners getting a £1000 per acre per year for the solar farm- unless we have tenant farmers affected?

7.10 Under Climate Impact assessment Mallard Pass should provide a full Carbon Footprint of building and running MP and compare that to the reduced emissions of running a Solar Farm versus Gas Fired Electricity Stations

7.11.1 Just how many jobs will be local onsite?

8.2 and 8.2.8 Air Quality has been excluded but if the vehicle movements are not correct this maybe an issue.

8.4 Risk of Major Accidents or disasters- a joke bearing in mind the massive Lithium Batteries that will be located around the site.

More information is required in the Environmental Statement about the traffic and vehicle movements.

MP is 2175 acres and Sunicca 2700 acres i.e. about 25 % bigger. This is taking total site size.

In the MP Scoping Report a figure of 30 HGV single movements per day is mentioned that equates to 60 movements allowing for the return trip. Taking a construction period of 2 years and 30 single trips per day that is  $2 \times 365 \times 30$  single trips in total ie 21,900- 43,800 trips if you include the return trip.

In the Sunnica Framework Construction Traffic Management plan and Travel Plan they list in months 1-8 119 HGV Single journey movements and months 9-24 38 HGV Single movements. I am assuming for ease 30 days in a month. So in the 1<sup>st</sup> 8 months there are going to be  $8 \times 30 \times 119$  single HGV Movements ie 28,560 single HGV Movements. For months 9-24 it will be  $16 \times 30 \times 38$  single HGV movements ie 18,240. So over the total construction period of 24 months 28,560 plus 18,240 single HGV Movements ie 46,800. This compares

with MP's figure over the 24 months of 21,900 single HGV trips ie 47% less than the Sunnica figures on a site 25% less in size. If you take the Sunnica figure of 46,800 HGV single trip movements and reduce it by 25% it comes to 35,100. I estimate that MP are underestimating HGV movements by around 13,200 single trip movements over the 24 month period.

On Staff vehicle movements this is not so easy. MP have stated between 100-400 staff on site peaking at 400. With Sunnica they are estimating an average of 653 staff vehicle movements over the entire 24 month construction period peaking at 937 in months 1-9. Even if we take MP's peak of 400 that is around 41% less than Sunnica's . I am assuming with MP a staff member will equate to 1 vehicle movement. All these figures are single trips.

The figures just don't add up at this stage more information on traffic movement is required in the Environmental Statement.

-END-

**From:** [REDACTED] on behalf of [East and East Midlands Forest Area Enquiries](#)  
**To:** [Mallard Pass Solar](#)  
**Cc:** [info@mallardpassolar.co.uk](mailto:info@mallardpassolar.co.uk); [REDACTED]  
**Subject:** Forestry Commission response RE: EN010127 - Mallard Pass Solar Project - EIA Scoping Notification and Consultation  
**Date:** 03 March 2022 13:04:24  
**Attachments:** [image002.png](#)  
[image001.png](#)  
[\\_403e5d5eae7b4c0ba768a738d063d5e0.pdf](#)

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Thank you for consulting the Forestry Commission on this application.

The main area of concern was how the proposals would impact the ancient woodlands of Careby and Braceborough and if they would be assessed using the Standing Advice. We sent comments in to the applicants prior to the preparation of the submission. (Copied below signature). We assume that the Standing Advice had been taken into account as field parcels 37 and 38 are earmarked for habitat/biodiversity. Other than that we don't have any further comments to make on the Scoping document.

Whilst it may not be relevant for this consultation we are aware from discussions with Forestry England Land Agent Liam Egan, the owners of the wood that they don't appear to have been consulted on these proposals. They have asked us to point out that they have a right of way for access on field parcel 38 and sent the attached map. Should the applicant want advice on species choice for resilience and relevant biosecurity for those adjacent fields Forestry England would be pleased to help [REDACTED]

Yours sincerely

[REDACTED]

Corinne Meakins

Copied text from our correspondence.

To whom it may concern,

Thank you for consulting the Forestry Commission at an early stage in this development. The Forestry Commission, is the Government advisor on forestry therefore we can neither support or object to a proposal, but endeavour to set out existing policy in order to deliver the best outcomes. The Forestry Commission's key concerns are the protection of Ancient Semi Natural Woodland and the protection and expansion of woodland overall. Therefore we hope in inputting at this early stage the PIER will reflect and address any concerns we may have .

Key issues to be addressed are

- The treatment of any ancient woodland which may be impacted by the proposal, Braceborough Wood is the closest to the boundary and any construction or storage etc near to this should be avoided, providing a large buffer area can help to do this, minimum 15 metres from edge of crown or fence whichever is largest, more is better in this case as the extent of roots and supporting mycorrhizal networks cannot be exaggerated.
- wherever possible retaining all other woodland and as mentioned in the document

'potential to connect habitat' joining these using further tree planting or hedges to extend the networks, will make them more resilient

- Also if there are any ancient or veteran trees the project should retain them.

Our Forestry Commission maps show far more detail and will have information about newly planted woodland which may not have been available to you. Areas of woodland may have been grant funded so removal could incur a penalty however the document already states the wish to retain woodland so this should not apply.

It is helpful to become familiar with potential impacts on ancient woodland by referring to the Standing advice prepared jointly by Natural England and the Forestry Commission. <https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences> , this also covers the treatment of veteran trees.

We would also like to point out that there may be opportunities to mask any visual impact using planting trees,

We hope that this is useful to you, if you have any queries don't hesitate to contact us and we will await the PIER with interest..

All future correspondence should be sent to East and East Midlands Forest Area Enquiries [eandem@forestrycommission.gov.uk](mailto:eandem@forestrycommission.gov.uk) ,





Title: **Braceborough Wood Access**  
Date: **1 March 2022**  
Author: **Liam Egan**  
Scale @ A3: **1:7,500**



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Greatford Parish Council

The Old School

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05/03/2022

Your reference EN010127

**SCOPING REPORT OPINION OF GREATFORD PARISH COUNCIL AS TO INFORMATION TO BE PROVIDED BY MALLARD PASS SOLAR LTD IN AN ENVIRONMENTAL STATEMENT RELATED TO THE PROPOSED DEVELOPMENT OF MALLARD PASS SOLAR FARM.**

Dear Sir / Madam,

Thankyou for your letter of 7<sup>th</sup> February seeking the Parish Council's opinion and comments on the Environmental Impact Assessment Scoping Opinion Report produced by LDA design for Mallard Pass.

The Parish Council has reviewed the report and has the following comments to make:-

1. P11. States the generation of an **anticipated 350MW**. Should it not be more definitive and explain the underlying assumptions that arrive at 350MW.

1.2.2 P12 A developer of an NSIP project should be able to demonstrate effective delivery of similar type projects. Windel only states '**projects** ranging from 10MW to 320MW'. When previously questioned in the public consultation, they could not confirm any projects actually completed.

2.1.1 P18. Given that Mallard Pass have clearly identified and mapped 54 agricultural fields, the exact size of the development should be clear. It states 'approximately 900Ha'. This report is about assessment methodology based on detailed information. There is a lack of detail and this should be provided.

2.4.2 P20. States: “The Site is predominantly located in Flood Zone 1, which is an area classed as having a low risk from fluvial and tidal flooding (less than 1 in 1,000 annual probability, as indicated by the EA Flood Map for Planning). The Site is predominantly located within an area of very low risk from surface water flooding. Areas of low to high surface water flood risk are located in the northern and western and central areas of the Site, associated with the West Glen River and its tributaries.”

Firstly this mentions only the **site**. It is the very strong opinion of Greatford Parish Council that Mallard Pass should consider the impacts **outside of the site – specifically Greatford** and draw upon local information from residents who can provide evidence of both pluvial and fluvial flooding. Mallard Pass has acknowledged some flood issues on site and the need to elevate panels, we would challenge this baseline information as not being representative and inclusive and the report fails to consider in any detail potential effects upon downstream receptors such as the village of Greatford and The Greatford Cut which is the primary flood defence for the village.

2.9.3. P25. “The solar PV Site is characterised by a high groundwater vulnerability. The northern and western extent of the solar PV Site is located within Zone II (Outer Protection) Source Protection one (SPZ)

- Figure 2.1 P26. The chart is misleading as the red/orange denote the solar PV site, when in fact those areas also include all the mitigation areas.
- Figure 2.6 P30. Water Resources and Flood extents. This chart does not show the impact on Greatford outside the site, and it only highlights 1 in 20 as the worst case scenario. As above in 2.4.2 we know there is ongoing flooding in Greatford and at the bottom of Essendine hill on a regular basis and the flood risk is likely to increase owing to climate change.

3.1.8 P33 Tracker panels could cause different levels and direction of glint and glare depending on time of day. Scoping documents should include this point.

- Plate 1 and Plate 2 images of panels – can Mallard Pass ensure the pictures are representative of the panel dimensions given - they look a lot lower, especially when you consider you need to add the elevation off the ground to the panel dimensions.

The lack of detail as to the type of panel Mallard Pass intend to use make calculating likely water runoff rates from panels impossible, more detail should be included in the Environmental Impact Assessment to allow detailed calculations of runoff from solar panels, water volume and velocity and the ability of the underlying vegetation and soil to absorb volumes of water so as to calculate any increased flood risk from large volumes of water from the proposed solar farm quickly entering the West Glen river and then the water courses around Greatford.

3.1.12. P36 “The frames upon which the solar PV panels will be mounted will be pile driven or screw mounted into the ground to a typical depth of approximately 1.5m, subject to ground conditions. The option to install concrete blocks known as “shoes” may also be considered, avoiding the need for driven and screw anchored installation, therefore minimising ground disturbance.”

This decision is key and there will be significant ground disturbance with pile driven or screw mounted frames, so this worst case scenario must be reflected on the impact of soil compaction and the increasing flood risk to areas downstream of the site- especially Greatford.

The issue of archaeological disturbance should also be scoped into the Environmental Impact Assessment as with the recent find of a large and complete Roman mosaic in Rutland, and the finding in 1961 of a Roman grave with human remains within the Mallard Pass site outside



Braceborough, the human remains of which are held by the University of Cambridge, it is highly likely that further archaeologically significant remains will be on site. These are very likely to be disturbed by the proposed piles and it is our opinion that a full survey should be undertaken to ensure valuable relics from the nation's past are not destroyed.

3.1.14. P36. "There are two options for inverters." MPs need to clearly state the maximum adverse effects of their choice, but importantly should be clear why there is uncertainty. Ref EN-1 2.49.17

3.1.18. P37. "The footprint of the transformers will typically be 12.5m x 2.5m and 3m in height. The configuration of equipment will depend on the iterative design process and be influenced by technical as well as environmental factors." As above they should specify why there is uncertainty and maximum impact scenario of a design.

3.1.21. P37 "The configuration of equipment will depend on the iterative design process as influenced by technical and environmental factors." As above, too vague.

3.1.29. P40 "A fence will enclose the operational area of the Proposed Development. The fence is likely to be a 'deer fence' (wooden or metal) and approximately 2m in height. Pole mounted internal facing closed circuit television (CCTV) systems installed at a height of up to 3.5m"

What is their rationale for 2m high deer fencing? A 2m high deer fence is too low and the deer will try to jump it and some will be injured. Also a wooden fence will not be sufficient to deter deer, a land owner in Greatford erected a 2m high wood post and wire fence less than 5 years ago, this is now largely ineffective owing to lengths of it falling over and has holes in where deer have run into it, damaging the fence and injuring themselves in the process.

"Clearances above ground, or the inclusion of mammal gates will be included to permit the passage of wildlife".

There needs to be much more detail as to the clearance above ground and the distance between mammal gates, the rationale around where these will be sited, and the exact wildlife species expected to use these gates.

3.1.30. P41 "For security requirements, operational lighting would include Passive Infra-red Detector (PID) systems which would be installed around the perimeter of the Proposed Development."

There is no consideration for the impact on wildlife of the proposed lighting, particularly light sensitive animals and insects and how night-time lighting in what is currently a very dark environment would affect their normal behaviour, eg: the effect upon moths and their predators, especially bats.

How sensitive will the PID be? And what animals could trigger it and affect others, how long would it stay on?

3.1.31. P41 "The lighting of the primary substation would be in accordance with Health and Safety requirements, particularly around any emergency exits where there would be lighting, similar to street lighting that operates from dusk. Otherwise there would be low level lighting on specific operational units that would again operate from dusk. All lighting would seek to limit any impact on sensitive receptors." The specific operational units need to be identified and on a map and the needs of sensitive receptors and how they will be affected assessed. There also should be consideration as to whether this has a negative impact on their habitat.

### 3.1.37 P43 Battery Energy Storage System.

Incredibly these have not been included in the section on Risk of Major Accidents and/or Disasters. Indeed Risk of Major Accidents and/or Disasters has been “scoped out” .

The type of battery has not been specified but it is highly likely that Lithium-ion batteries will be used.

Lithium-ion batteries can, and have failed, leading to electrochemical reactions. These reactions do not require oxygen and can spread rapidly giving rise to “thermal runaways.” Normally, and incorrectly referred to as a fire. The only method of dealing with “thermal runaways” is cooling with large amounts of water until the reaction ceases. The electrochemical reaction emits toxic gases including hydrogen fluoride. Explosive gases are then emitted which can cause large explosions. There are numerous instances all over the world of serious battery fires and toxic explosions. Scoping should include design of battery containers to prevent electrochemical reactions, detection, suppression and action to be taken to cool the reaction with sufficient quantities of water. Batteries were included in the Sunnica Energy Farm Environment Impact Assessment Scoping Report and in the Cleve Hill Solar Park Environmental assessment, so there is a precedent for it to be included in the scoping report for Mallard Pass.

Table 3.1: P44 “Minimum Offsets to Landscape and Ecological Features and Designations” table. Are these just statutory minimums adopted? It would be better to also show a maximum as these offsets do not demonstrate full acknowledgement of the importance for wider biodiversity gains. It shows little sensitivity to many of the receptors.

3.2.3. “The existing Public Rights of Way (ProW) that cross the Site will be retained and incorporated within multifunctional green corridors. Subject to the construction phasing and methodology there may be a requirement to temporarily divert a public right of way during the construction phase, the details of which will be sought to be agreed with the relevant key stakeholders, with an appropriate temporary alternative provided.”

There would need to be a clear risk assessment for diverting or removing a PRow during construction, understanding the consequent behaviour of the walker, horse rider or cyclist. This needs to be clearly scoped due to safety and well-being issues for the many PRow users.

3.2.4 P45 “Potential areas for mitigation and enhancement as identified on Figure 3.1 will also provide areas for green infrastructure and potentially be used to deliver a 10% net gain in biodiversity”.

What does “potentially be used” mean? There needs to be much greater clarity on this point. If the net bio-diversity gain is not achieved, then what?

Bio-diversity gains need to be quantified and qualified and over what time period? It should not be a purely volume metric, it has to be determined through its appropriateness to each habitat and should be measured on a quality index. Every mitigation area will have different needs. It will need to be proven how a bio-diversity gain is maintained through careful management. Further clarity on all this methodology is required.

3.4.1 P46. Construction. Due to start in 2026. Other published Mallard Pass documents say 2024. There needs to be clarity on this point.

3.4.5 P48. AIL loads. Mallard Pass identified the potential need for temporary localised road widening; there is no mention of assessing the likely impact on biodiversity and other receptors. The road in question off the A1 between Great Casterton and Ryhall is winding and is bounded by hedgerow. Equally there are limited options between Ryhall and Essendine.

3.4.8 P48 “it is anticipated that during the peak construction period, there could be 30 Heavy Goods Vehicles (HGV) deliveries per day, which equates to 60 two-way movements”. Looking at other solar farm NSIPs, like Sunnica and Cleve Hill, these estimates look to be very low which will have a knock on effect upon all of the assumptions made about traffic impacts, noise impacts and air pollution impacts. There should be greater clarity on the assumptions underpinning these numbers and also whether Mallard Pass have taken into account other developments that will be going on in and around Greatford during this period as there will be 80 to 100 extra HGV movements created by a new quarry, and also HGV and heavy plant movements created by the proposed Anglian Water pipeline.

3.4.9. P49 “Temporary Construction Compound. During the construction phase, a primary construction compound is expected to be located onsite with one or more temporary secondary construction compound(s) provided at different locations throughout the solar PV Site, as well as temporary roadways, to facilitate access to all parts of the solar PV Site. The details of which (including location, scale and duration) will be set out and described within the ES”. This is fundamental to the whole traffic plan, how can assumptions be made about traffic loads and routing without stating where these temporary compounds will be? More information is required upfront as there may be many significant impacts.

3.4.10 P49 Construction Reinstatement and Habitat Creation . “A programme of construction reinstatement and habitat creation will commence during the construction phase”. It is our opinion that the underlying grass in the proposed solar panel fields should be established well before (at least 2 years before) construction starts so as to give some resilience to the soil being run upon and compacted during the construction of the solar panel arrays. Established grass will recover far more quickly and provide more protection from flooding and sediment loss than grass that is established during or after construction when the bare soil is most at risk from compaction. There is no indication of these important considerations in the report.

It is also our opinion that the construction plan should consider ground conditions and work should not be undertaken on wet soils, as it will create long term compaction leading to poor water infiltration and increased flood and sediment loss. This is good agricultural practice and it should be adopted here.

### 3.5. Operation

3.5.1. P50 “The operational life of the Proposed Development is not proposed to be specified in the application and the Applicant is not seeking a time limited consent.”

Is it realistic to assume the life of a solar farm is unlimited?

Surely there should be a time limit to the technology as newer more efficient technologies are developed?

Equally there will be a life span of the components. They will need to be replaced every 25 years which will inevitably impact upon the receptors during the operational phase. If any part of the site is deemed non-operational, will it be automatically decommissioned? The land may need to be returned to some other function deemed more important at a future date. It is our opinion that there should be a planning lifespan for this project, and if necessary it could be extended by future application.

3.5.3.P50 “The land underneath and around the panels **could** be managed through a combination of sheep grazing and/or hay/silage production in order to maintain the field vegetation during the operational phase of the Proposed Development”.

“Could” is very vague. The method of management here is key to ensuring the right biodiversity is maintained and flood risk is fully mitigated by reducing unnecessary compaction. There seems little

acknowledgment of needing a clear assessment of pasture management, noting all key receptors. Have they fully explored the options? There is no plan in place to appoint a grazier, or to manage the health and wellbeing of any livestock deployed in the maintenance of the grass on site. It is our opinion that this should be addressed as it is fundamental to the management of the site's environment.

3.7.3 P53 "A series of Design Principles will be developed for the Proposed Development. The Design Principles for the Proposed Development will align with the core purposes and ambitions of the 'Design Principles for National Infrastructure' which are Climate, People, Places and Value." "Principles should act as reminders to the delivery organisation, a steer in the right direction, and a means of restoring focus to the big picture... Design Principles should be a point of departure, setting out a common understanding [of] the issues to be addressed." (Developing Design Principles for National Infrastructure (NIC, 2018))."

Taking Value as an example:

- Provide wider economic and supply chain benefits, and a positive legacy for the communities in and around Mallard Pass Solar Farm. There is absolutely no detail of any economic or legacy benefits for the communities in or around the proposed Mallard Pass development.
- Respect the wider landscape and the intrinsic value of the countryside and natural environment;
- Respect and respond to features of heritage value.

Taking People as an example:

- Engage openly and transparently with local communities, stakeholders and neighbours, making use of local knowledge to improve our project;
- Consider feedback carefully and engage and respond meaningfully;
- Behave as a considerate neighbour through both construction and operation;
- Respect public amenity.

There needs to be more details as to how Mallard Pass intends to deliver the above, and also detail as to what methods and processes they will use to assess that the above are delivered?

4.1.2. P57 "Consultation alongside the EIA process is critical to the development of a comprehensive and proportionate ES. The views of statutory and non statutory consultees are important to ensure that the EIA from the outset focuses on the environmental studies and to identify specific issues where significant environmental effects are likely, and where further investigation is required".

Please check Mallard Pass's statutory and non-statutory lists as they appear to have some errors and inconsistencies in relation to cross county (Lincs & Rutland) coverage with certain organisations.

4.2.2. P58 "All responses received during consultation are being carefully considered and taken into account in the development of the Proposed Development and a consultation summary report has been released at the same time as this EIA Scoping Request."

The Scoping request was issued on the 7<sup>th</sup> of February, but the consultation summary report booklet wasn't received in the post in Greatford until the 24-25<sup>th</sup> of February.

5.4.7. P63 "Paragraph 4.2.2 of the NPS states that: "To consider the potential effects, including benefits, of a proposal for a project, the IPC [now PINS] will find it helpful if the applicant sets out information on the likely significant social and economic effects of the development, and shows how any likely significant negative effects would be avoided or mitigated. This information could include matters such as employment, equality, community cohesion and well-being." How will they demonstrate community cohesion and well-being, what methodology will they use? There is no detail as to any social or economic effects of the development in this scoping report, or how they might be measured should they arise.

5.5.5. P67 Section 2.48 of the Draft NPS EN-3 sets out key influences that developers should consider when selecting sites for solar development” eg. Proximity of a site to dwellings – why is there no minimum agreed buffer in their offsets list?

5.5.8 P67 “Draft NPS EN-5 includes a new section on ‘Environmental and Biodiversity Net Gain’ at Section 2.8, which states that when planning and evaluating a projects contribution to environmental and biodiversity net gain, it will be important, for both the Applicant and examining Authority, to recognise that “the linear nature of electricity networks infrastructure allows excellent opportunities to: i) reconnect important habitats via green corridors, biodiversity stepping zones, and re-establishment of appropriate hedgerows; and/or ii) connect people to the environment, for instance via footpaths and cycleways constructed in tandem with biodiversity enhancements.”

Please can you clarify how these will be delivered? as there is no detail in the scoping report.

5.7.7. P71 “Policy RE1 ‘Renewable Energy Generation’ of the SKDC Local Plan states that proposals for renewable energy generation will be supported subject to meeting the criteria outlined in Appendix 3 ‘Renewable Energy’ of the Local Plan and provided that:

- The proposal does not negatively impact the district’s agricultural asset;
- The proposal can demonstrate the support of affected local communities;
- The proposal includes details of the transmission of power produces;
- The proposal details that all apparatus related to renewable energy production will be removed from the site when power production ceases;
- That the proposal complies with any other relevant Local Plan policies and national planning policy.”

The proposed scheme appears to be in direct conflict with much of the local policy RE1 as it does negatively impact upon the district's agricultural asset, does not demonstrate support for local communities and does not seek to remove all apparatus when production ceases.

6.3.1. P74 “Whilst every ES should provide a full factual description of the development, the **emphasis** of Schedule 4 (of the EIA Regulations) is on the "significant" environmental effects to which a development is likely to give rise.”

Emphasis does not mean the preclusion of other impacts. How significant is evaluated can be differently interpreted and this needs to be clarified.

6.5.3. P75 “The ‘future baseline’ scenario will describe the changes from the baseline scenario as far as natural changes can be established, although it is noted without the Proposed Development that the solar PV Site would continue to be intensively managed for agricultural purposes.” The baseline should consider likely forthcoming changes in agricultural practice as landowners diversify and perhaps re-introduce livestock, change rotations to fix atmospheric nitrogen instead of purchasing artificial nitrogen (with associated environmental benefits) and grow a wider range of crops or release the land for rewilding.

6.5.19.P80 “Cumulative effects with other schemes will be assessed as part of the EIA process.” The other schemes need to be identified first before any areas are scoped out – this is not obvious in the recommendations of this report. The scheme might not be solar but the traffic impacts upon Greatford and surrounding villages from new housing, a 55Ha quarry, a water pipeline and other developments in the area should be scoped in and studied in greater depth.

6.5.27. P81 “Mitigation measures are developed as part of an **iterative** process and therefore will be developed throughout the EIA process in response to the findings of the initial assessments.”

How can so many areas in this report be scoped out if a number of mitigation measures are going to be iterative? This does not make sense.

6.5.30. P83 “Our approach to EIA is not to undertake an assessment of environmental effects where primary or tertiary mitigation measures are sufficient to avoid a likely significant effect occurring. This approach allows the ES to be focussed solely on the likely significant environmental effects and not theoretical significant effects that will not materialise as a result of the design or standard construction practices.”

Is this wholly valid? Who decides what is a theoretical significant effect? What happens if a theoretical effect becomes an actual direct effect?

Mallard Pass appears to have entirely dismissed the major concern of the Parish of Greatford which is the potential for the proposed development to increase the speed and volume of flooding in the village as a result water running off panels and the underlying soils being unable to absorb all of the water they are currently able to. This could be defined as a theoretical effect but it needs to be part of the approach and a thorough assessment of the risk and likely impact needs to be undertaken.

6.5.35. P84. Regulation 14(2)(d) of the EIA Regulations also requires that the ES should include: "A description of the reasonable alternatives studies by the applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment..."

This is not apparent in any documentation so far. Can this be reviewed? In the initial consultation we asked why the large number of local brownfield sites such as dis-used airfields and dis-used landfill sites with a surface area of circa 730 Ha and within 10miles of the Ryhall substation aren't being considered?

7.3.2 P89 “A number of viewpoints have been identified from within and around the Site from publicly accessible locations to understand the nature of existing views towards and within the Site to inform the assessment.

We have appended the “viewpoints.doc” from Mallard Pass Action Group which has reviewed all the proposed viewpoints and the choice of locations for photomontages. As locals we are best equipped to understand the viewpoints for both transient and amenity users and we recommend that these viewpoints are used to consider the visual impact of the proposed development.

7.3.3 P90.”However, the gently undulating terrain combined with woodland stands, vegetated field boundaries and roadsides act to provide a wooded backdrop to many views and, therefore, screening the Site from further afield, limiting distant views from outside of the Site.”

This baseline assessment is not the case for a large proportion of the site which has open views. These statements are misleading.

7.3.15. P95 “The study area includes the settlements of Essendine, Ryhall, Belmesthorpe, and fringes of Stamford, scattered properties as well as recreational routes and PRow (footpaths, bridleways etc.) and local roads.”The viewpoints cover a wider area than listed including the outskirts of Carlby, Braceborough, Aunby, Pickworth etc.

7.3.17 p95 Grade II\* **Burley** House RPG (approximately 1.5km south), (considered as part of landscape value); this should say Burghley House in Stamford as opposed to Burley House which is near Oakham – this error is repeated throughout the scoping report.

7.3.20. P96 A preliminary assessment from desk-study and fieldwork indicates that potential landscape character and visual effects would likely be limited to the solar PV Site and its local context up to approximately 500m east and south, and 1km west and 2km north. Areas at greater distances from the Site in these respective directions are **unlikely** to experience any notable or perceptible change to their prevailing characteristics, owing to the limited intervisibility of the Proposed Development as a result of intervening vegetation, existing built development and landform. This is a vague statement and needs to be backed up with robust data.

7.3.21. P97. “The representative viewpoints have been selected from publicly accessible locations and generally where the greatest potential effects are anticipated to be experienced. The viewpoint locations represent a wide range of receptors, providing a 'sample' of the potential effects from the locality, with locations purposefully selected to illustrate the range of visual effects; or to specifically ensure the representation of a particularly sensitive receptor. Please see Appendix 1 of this scoping opinion for a better selection of viewpoints that in our opinion better assess the impact of the proposed development.

7.3.22 P97 “we propose to undertake rendered photomontages for years 1 and 15 of the Proposed Development from Viewpoints 1, 2, 3, 10 and 11 to demonstrate the views” **Assessment covered in separate ‘viewpoints.doc’ – Appendix 1. Most of the photomontages selected by Mallard Pass do not give a representative view of the solar panels.**

7.3.27 P91 “The reversible nature of the Proposed Development means that the landscape can be returned to its former agricultural use, should it be decommissioned”.

This makes a huge assumption that the soil will be capable of returning to agricultural farming, and over what time period is this likely to occur? Soil takes millennia to produce and can be destroyed in a few years. There is no evidence to validate this assumption and no detail as to how decommissioning will be undertaken; this needs to be within scope of the EIA.

7.3.37. P104 “Early and continued development of the design has identified potentially affected settlement fringes and residential properties and resultantly, the proposed built solar development footprint has been set back considerably from these boundaries (e.g. around Essendine), providing a sufficient buffer between these receptors and Proposed Development, to avoid the potential risk of 'overwhelming' or 'over-bearing' visual effects to residential properties. As such, residential amenity will not be assessed within this LVIA and is scoped out of the EIA. A Residential Visual Amenity Assessment will be undertaken and submitted as part as a standalone report as part of the DCO application.”

**Given the level of feedback to the first consultation it is evident that residents in the vicinity of the proposed development feel their visual amenity is still heavily affected. Whether they live next to the PV site or close to it, in their day to day life the visual impact is significant. The level of detail on mitigation so far does not alleviate the visual concerns, so this should definitely not be scoped out at the next stage.**

## **Ecology**

7.4.7. P106 “The details of the surveys carried out and the baseline conditions identified are set out in the Ecological Baseline report provided at Appendix 7.2”

There are concerns about the timing, range and extent of some of these surveys not being sufficiently robust to provide an accurate assessment of wildlife present. Eg:-

- Great crested eDNA should be done between mid April and end June. They took samples on 29 April, which is within the timing, but is still a bit early. Evidence of GCN in Braceborough, close to the proposed development, shows that they appear in May.
- Phase 1 habitat survey - end or March and end April is quite early, especially for many flowering plants.
- Wintering birds - should be monthly in Winter (Dec-Mar). Surveys only undertaken in Nov and Dec, so are inadequate. There is no detail about weather conditions on the visits which could affect the result. • Bats should be surveyed May - Sept, but they didn't survey for them explicitly and they are common in the locality.
- Other protected species surveys Appendix 2.30: Surveys for foraging and commuting bats, roosting bats, hazel dormouse, reptiles, invertebrates and plants (detailed botanical survey) were not undertaken, despite some habitats on site being suitable for these species and they are present in the locality.



7.4.23 P110 "All the hedgerows on Site are considered to meet the description of the Hedgerows HPI". Given hedgerows are an HPI, the solar PV should be far more sensitively positioned to enable the best bio diversity to develop. What basis has been used to set the margins?

7.4.25 P110 "The West Glen river has the potential to meet the description of the Rivers HPI (Maddock, 2011) based on the presence of aquatic species and water quality and hydrological parameters, although this was not assessed in detail."

This should be further assessed given the likelihood of it being an HPI?

7.4.49.P116 "No records of polecat *Mustela putorius* were returned by the LRC or LRERC but this species is reportedly present on the western edge of the Site along the Drift (information supplied by Tom Tew of Naturespace). This species is an SPI."

A resident of Greatford has reported a Polecat sighting near Banthorpe lodge. Further investigation is required as this species is an SPI.

7.4.76. P123. Designated sites: " however, accidental damage and other direct or indirect effects may occur to the Ryhall Pasture and Little Warren Verges SSSI and Tolethorpe Road Verges SSSI, adjacent to the Site. Accidental damage will be avoided by implementing appropriate control measures during the construction stage (tertiary mitigation)."

Due to the nature of the Proposed Development, no impacts to the SSSIs are likely to occur as a result of noise or air pollution."

Is this assumption valid? There will be pollution from the considerable amount of lorries using a very narrow road not just for the new battery storage facility but for access to the PV areas on that side of the site. Also the proposed mitigation of fencing may not be at all viable as roads are not wide enough already. The verges need to be protected and the fencing process in itself could cause damage.

7.4.77 P 123 "Potential adverse impacts to the integrity of statutory designated sites through loss of supporting habitat is scoped out of the EIA for all phases".

That is a contradiction to the issues previously highlighted and should not be scoped out.

7.4.89. P127 "During the operational phase it is unlikely that any impact would arise on badgers and therefore is scoped out of the EI".

There needs to be more survey work to understand the badger behaviour during operation and this should not be scoped out. Experience has shown that they create new setts and move around, farmers are constantly having to be careful when using machinery. There have been issues recently close to the site, of badgers digging next to the gas pipeline and under farm roadways. There were no surveys in the woodland, therefore limited pictures of their habitats.

7.4.95. P128 "No impacts to hazel dormouse during the operational phase are likely to occur." These are therefore scoped out of the EIA."

Hazel dormice have been seen close to the site, they should not be scoped out of the EIA

7.4.98. P129 Other mammals P128 "Due to the nature of the Proposed Development, no impacts are likely to arise during the operational phase. These are therefore scoped out of the EIA."

The impact on brown hares and their behaviour needs to be assessed. Will the 30x30 gates provide sufficient access to the PV area or will there be significant injury/death due to fencing next to roads? The effect on the healthy Roe Deer population present across the proposed development should also be considered in detail.

7.4.103 P130 "Therefore, impacts to birds during the operational phase of the Proposed Development is scoped out of the EIA."

Further review needs to be done on the impact to ground nesting birds. ie. What kind of ground cover do different ground nesting birds require to ensure a safe undisturbed habitat. What kinds of maintenance activity (sheep grazing, mowing) will disturb that habitat?

7.4.107. P131 Amphibians “The Site supports few terrestrial habitats with the potential to support amphibians and these are proposed to be retained. All ponds are also proposed to be retained and none within the Site, or adjacent to it, were found to support GCN, though common toad may be present.”

There are GCN in Braceborough and therefore likely to be in other ponds on the site, the survey was conducted at the wrong time to identify their presence, further investigation is required.

7.4.111 P132 Invertebrates. “Operational impacts to invertebrates are scoped out of the EIA.” There is insufficient data available, no survey work was conducted. There needs to be a better understanding as the compaction impacts on the soil and how the changes from agriculture to solar PV land affects their habitat and populations.

7.4.115. P132 “During the operational phase of the Proposed Development, no impacts to protected species are likely to occur as:

- The lighting scheme will be designed to avoid artificial lighting on linear features (including hedgerows and water courses), woodland and other retained or created habitats. This will avoid adverse effects on bats, dormice, otters, water vole, amphibians, birds and other SPLs.
- Onsite operational traffic will be minimal and limited to maintenance vehicle movements at very low intensity, with a negligible risk of accidentally injuring or killing any protected or notable species such as wild mammals, amphibians, reptiles or birds.
- No regular presence or work is envisaged onsite leading to disturbance of retained or created habitats. The above is an assumption and a statement and not backed with clear evidence or assessment. They cannot define the impacts clearly as there is no information on the type of management activities in operation and the different impacts from each activity. Mowing under panels is different to grazing sheep to cleaning the panels to using machinery to take haylage - all have different impacts and the management practices should be assessed in terms of impacts upon wildlife.

7.4.116. Consultation. P133 “The consultation process to be undertaken will involve consultation with the Ecology Officers for Leicestershire, Rutland and Lincolnshire County Councils. Non-statutory consultees such as the Wildlife Trusts will also be approached. These stakeholders will be provided with the summary of the baseline of ecological conditions, the general proposals and the principals which will be used for the detailed design of the Proposed Development.”

With so many areas scoped out of the operational EIAs, and only preliminary data and survey work so far, how can the stakeholders receive an informed baseline of information?

**A report from Natural England: Evidence review of the impact of solar farms on birds, bats and general ecology (NEER012) 2017:**

“When considering site selection for utility scale solar developments it is generally agreed that protected areas should be avoided. This is reflected in the scientific literature where modelling approaches include many factors such as economic considerations and visual impact but also often avoid protected areas such as SPAs. This is echoed by organisations such as Natural England and the RSPB that recommend that solar PV developments should not be built on or near protected areas. As sensitive species and habitats are not necessarily restricted to the geographical boundaries of protected areas, it is imperative that research is undertaken into the potential interactions between solar PV arrays and biodiversity, especially sensitive habitats and species.” “...concerns have been raised that solar PV developments have the potential to negatively impact a broad range of taxa including birds, bats, mammals, insects and plants. In light of this, it is highly recommended that research is undertaken into the ecological impacts of solar PV arrays across a broad range of taxa at multiple geographical scales.”

**Given these conclusions, it is too early in the process to suggest that so many areas are scoped out of the EIA. Highways**

7.5.39/40. P143. "The IEMA Guidelines for the Environmental Assessment of Road Traffic identifies two broad rules-of-thumb which could be used as a screening process to determine the scale and extent of assessment. These rules are summarised as follows

- Rule 1 – include highway links where traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%).
- Rule 2 – include any other specifically sensitive areas where traffic flows have increased by 10% or more.

Any links within the study area that fall below these thresholds will be scoped out of the assessment, unless specifically requested to be incorporated by key stakeholders or the local Highway Authorities." **The fundamental question is whether the vehicles' movements have been accurately forecast. This affects all associated scoping assumptions.** If you refer to Sunnica's CTMP

[https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010106/EN010106-001865-SEF\\_ES\\_6.2\\_Appendix\\_13C\\_Framework%20Construction%20Traffic%20Management%20Plan%20and%20Travel%20Plan.pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010106/EN010106-001865-SEF_ES_6.2_Appendix_13C_Framework%20Construction%20Traffic%20Management%20Plan%20and%20Travel%20Plan.pdf), you will see their level of vehicle movements for a 2400 solar PV area. Mallard Pass is disproportionately low.

7.5.42. P144 Sensitive receptors.

- Route 1: should list other drivers at this critical Great Casterton T-junction after having come off the A1; users of the villages of Ryhall & Essendine.
- Route 2. There are 2 primary schools not listed in Uffington; users of the villages of Tallington and Uffington; users of the town of Stamford.

All of these are sensitive receptors. Aside from noise, pollution, safety is a major consideration.

7.5.44. P145 "Potential Effects The potential effects to be assessed during the construction phase of the Proposed Development on those links that exceed the thresholds set out at paragraph 7.5.39 are as follows:

- Severance;
  - Driver Delay;
  - Pedestrian Delay;
  - Pedestrian and Cyclist Amenity;
  - Fear and Intimidation;
  - Accidents and Road Safety;
  - Hazardous Loads."

Is The IEMA the only baseline methodology for assessing these impacts? An increase in certain traffic levels may not create a linear impact on some of the effects listed above. There also needs to be some assessment which is not purely quantitative and linear, but has qualitative and local knowledge inputs. The methodology seems very unrepresentative of the reality that would be experienced if the impact was deemed medium for example.

7.5.56. P148 Hazardous or Dangerous Loads. This is scoped out of the assessment. There are hazards along all 3 routes of different descriptions. There is high potential for collision with other vehicles with articulated transport in particular due to narrow or windy roads, hills – already known accident hotspots. Given the sensitive nature of some of the loads – toxic substances contained within the solar panels, batteries etc, it seems very unwise to scope this out of the EIA and it should in our opinion be scoped in.

7.5.59. P149 "it is considered that the significance of the environmental effects of the operational phase of the Proposed Development would be negligible with respect to access and highways and therefore a detailed assessment of the operational phase of the Proposed Development is proposed to be scoped out of the EIA." Given it is not clear what kind of management activities will take place, can it be clarified what has been used as a worst case scenario to underpin the vehicle movements and scope this out?

7.6. P151 Noise and Vibration. Baseline conditions. The list is not complete, it should include the following: 1 Grange Farm Cottage, 2 Grange Farm Cottage; Grange Farm; West Barn Cottage, Lodge Cottage, Braceborough Lodge Farm

7.6.10. P153. The NPPF also notes that tranquil areas which have remained relatively undisturbed by noise and which are prized for their recreational and amenity value should be identified and protected. Many parts of the proposed site on PRoW are in our opinion undisturbed by noise and are definitely prized by the residents for their recreational and amenity value.

7.6.22 Desk and field study. Appendix 7.4 only highlights the locations, yet the data is only going to be provided at the ES. Given how critical this is to residents, they would want to see something in the PEIR for the public consultation in the spring. The whole PV site plan could change depending on the buffer they allow for nearby properties which could be impacted by these results. The test frequency appears very limited in 7.6.23, will it provide a representative baseline? Will any allowance be made for the impact of wind direction and to extend the 250m boundary and factor it into the noise level range (high wind, low wind etc).

7.6.31. P158. "Some construction activities, such as piling operations, drilling or vibratory rolling techniques, can generate vibration levels in close proximity to their use (less than 50m typically)".

If proximity to any residential areas is less than 50m, there should be an assessment of the wider impacts on those properties ie. not just noise, dust etc, but importantly if older properties have no foundations what could be the impact of those vibrations. Clarity upfront on residential buffers/margins to proximity of solar PV could resolve many questions/concerns.

7.6.36. P160. "Primary mitigation will first involve adjusting the design of the Proposed Development to maximise (where possible) the distance from areas including noise-generating plant from noise-sensitive receptors. The detailed design of the Proposed Development, including final plant locations and selections, can be controlled through a requirement of the DCO that would establish suitable noise limits at the boundary of the Site".

Would it not be more helpful if Mallard Pass at the earlier stages set their noise limits and adjusted their plan accordingly, rather than it being a requirement of the DCO? They could share their mitigation measures earlier in the process.

7.6.37 P "Noise impacts from construction traffic are therefore scoped out of the EIA".

This assumes the baseline for vehicle movements is correct which we don't believe it is – ref 6.6.37.

## **Water Resources and Ground Conditions 7.7**

7.7.2. "A desk-based survey was undertaken in December 2021 to understand the baseline conditions for water resources and ground conditions at the Site." Whilst desk-based work is always a starting point, there seems to be no further assessment based on local knowledge and other available information. The report has been produced by Argyll Environmental in Brighton and contains a vast amount of data, site diagrams, flood risk areas, wildlife info, etc, gathered from the EA, Natural England, and other sources, but Argyll themselves point out this report on its own is not sufficient.

7.7.5. P162. "An initial baseline study shows that elements of the Proposed Development north of Essendine village and south of Wood Farm lie within groundwater Source Protection Zones (SPZ) 1 and 2 and outside of the River Welland catchment Surface Water Safeguard Zone".

Given this information it will be critical to avoid any water contamination from damaged solar panels and/or on site battery storage faults (Fires) and mitigation needs to be clearly identified.

7.7.6 P162. This has “ 'high' Impact Risk Zone associated with the SSSI at Ryhall Pasture and Little Warren Verges”.

As above there needs to be clear mitigation or re-design to avoid any contamination issues.

7.7.12. P164. “A Site walkover will be undertaken to verify the location and nature of watercourses and waterbodies within the study area likely to be affected by the Proposed Development. The Site walkover will augment the desk study.”

Depending on when the site walkover is done will significantly impact the conclusions reached. 2021/22 has been very dry. To supplement the desk and walkover studies, every Parish Council and Flood Warden where applicable should also be contacted to build the knowledge base; **in particular, the Greatford Flood Warden has a wealth of knowledge in this Parish.**

7.7.13. P164. “Infiltration testing will be conducted at the Site in early 2022. The infiltration testing will comprise of test pits which will be utilised for testing to Building Research Establishment (BRE) 365 (2016) standard in order to confirm the permeability of the underlying soils and suitability for infiltration drainage.” Is this the right testing approach? The infiltration rates at the soil surface are of great concern from a flooding point of view, while test pits are useful to determine field capacity surface infiltration will be key to understanding how large volumes of water draining from panels at their lower edge will interact with the soil post construction, there is a very real danger that large volumes of water will running downhill will erode channels leading to erosion, rapid water runoff, increased flood risk and siltation issues down stream. This does not appear to be considered in the scoping report and should be investigated.

7.7.19. P166. “Draft NPS EN-3 (BEIS, 2021) outlines the requirements for an FRA and the promotion of the use of sustainable drainage systems (SuDS).”

Mallard Pass has not detailed the use of SuDs so far, just acknowledged there are flood risk areas and will raise the height of solar panels. This does not take into account the impact of water run-off outside of the site, and in particular the impact upon flood defences such as the Greatford Cut.

7.7.21. P168. “The baseline data will be used to assess the potential effects of the Proposed Development on hydrological and hydrogeological resources within a 5km study area. This study area is based on the hydrological and hydrogeological connectivity of water bodies located downstream of the Proposed Development.”

MPs need to show flood maps taking into account the 5km study area, currently Greatford is just off their map. Please note that the Water Resources Sensitivity table in Appendix 7.6 – this applies to Greatford Cut (a flood defence) and is highly sensitive.

7.7.28. P169 “As sections of the Site are located within Flood Zone 3a, the FRA will need to demonstrate that the Proposed Development passes the Exception and Sequential tests outlined in the NPS and NPPF. There will be a requirement to raise all electronically sensitive equipment at least 600mm above the highest modelled flood level for the 1 in 100-year (+climate change) event, or have a commitment to install flood resilient measures onsite infrastructure.”

As above point 7.7.19 if panels need to be raised, what criteria will they use to assess the use of SuDs?

7.7.29. P169. “The FRA will be produced and will focus on the following elements:

- Assessment of the introduction of new hard-standing areas on the greenfield run-off rates, using Micro Drainage software.”

This needs to take into account all the new access tracks and hard-standing bases for all the battery storage on the solar PV site, and runoff from the panels themselves.

#### 7.7.31 P170

“Construction effects” – there is no mention of impact of compaction of the soil, temporary access tracks etc on water run-off.

#### “Operational Effects

- Increase in surface water run-off from areas of hard-standing;” - there is no mention of the impact of run-off from the solar panels themselves. Normally rain is dispersed evenly across the ground, when it falls on solar panels up to 3.5m high, there will be a huge concentration of water run-off at the bottom of the panels, leading to water channels being created, and speeding up the flow of water if the ground is unable to absorb it. These effects need to be taken account of.

7.7.39. P172. Issues to be scoped out. “Potential transfer of chemicals to surface water resources during operation”. Given the possibility of contamination from damaged panels or chemical leak from battery fire on the solar PV site, this should in our opinion be scoped in.

### **Agricultural Land Use**

**This is a key determining factor in the decision making process with the Planning Inspectorate, so ensuring this is scoped, correctly surveyed and assessed, is critical to the outcome of the application.**

7.8.5. P173 “In order to inform the assessment an Agricultural Land Classification survey will be undertaken at the Site. Given the size of the Site the survey will be carried out at a semi-detailed scale. This will involve in the order of 210 auger locations on a regular 200 metre grid across the solar PV Site.”

What is the baseline methodology for determining 210 locations (looks too low), and what guidelines are they using to conduct these surveys? Semi-detailed for such a huge site and with many differing soil series is clearly inadequate. In our opinion this survey needs to be much more detailed and the methodology shared to inform further comment.

According to the British Society of Soil Science (BSSS) Proficiency in ALC Survey Grading of land using the ALC system is not straightforward. For individual development sites this normally involves a detailed ALC field survey, according to the MAFF 1988 ALC guidelines. Proficiency in the conduct of an ALC survey requires knowledge and experience of field soil survey and the interpretation of soil, topography and climate data. There are comparatively few experts capable of carrying out ALC to a sufficient professional standard. For this reason, BSSS has published a professional competency document 4 that outlines the qualification, knowledge, skills and experience required to carry out ALC. It is in our opinion essential that the practitioner carrying out this survey is suitably qualified and experienced.

7.8.17. P176 “In terms of magnitude of impacts, the loss of more than 50ha of BMV land is considered to be a large/major magnitude, losses of 20-50ha are of moderate/medium magnitude and losses of less than 20ha to be of low magnitude. These thresholds are based on established practice. The 20ha threshold is the trigger point for consultation with Natural England on losses of BMV agricultural land.

Based on an approximate solar PV area of 530Ha minimum, should Natural England be involved now as more than 20Ha (3.7%) is likely to be BMV land. Also more than 50Ha (10% of the land could be BMV ) which is deemed large/major magnitude. Given these statistics it is even more important that the soil survey work is full, thorough, qualified and wholly independent.

7.8.18. P176. Potential Effects. “The Proposed Development has the potential to affect the agricultural land quality and use of the solar PV Site. The construction process is generally considered unlikely to significantly affect the agricultural land quality or the soil resource”.

This is not the belief of local specialists who see there will be damage to the soil through compaction and drilling, putting down access tracks during the construction period. The view is the soil will be badly degraded, and in time devoid of life underneath the panels as light and water will be withheld by the very nature of the

panels. In time the soil will be able to cycle the nutrients necessary to return to agricultural production after 40 years. This of course will be hugely affected with how the soil is managed over the 40 year period. No information or data is offered in the scoping document and this information should be sought and included in the EIA.

### **Climate Change**

7.10.10. P186. “The effect of the Proposed Development on climate change will be assessed by evaluation of two quantities. Firstly, the potential emissions associated with the construction and operation of the Proposed Development. This will include the construction process and the manufacture and transportation of the components of the Proposed Development, and the carbon dioxide emissions embodied within them.” This assessment does not include the carbon cost of importing more of our food as a result of the loss of agricultural land production in the UK. It also does not take account of the carbon costs of replacing and recycling panels when they are no longer efficient/redundant – it is known they will not last 40 years. This should be included in the EIA.

### **Socio-economic**

7.1..20/21 Assessment of effects only mentions on the negative side the loss of agricultural workers, there is also the lost income to all the other businesses in the supply chain associated with agriculture & farming. This impact will continue during the operational phase. In our opinion this needs to be factored in.

7.11.25 P195 “it is considered that the effect on the local tourism economy will not be significant and it is therefore proposed that this is scoped out of the EIA.” The distances to Stamford and Burghley are closer than 2.3km, as outlined earlier in the report. If you start to change the character and feel for an area it could have a negative impact particularly for Stamford, in our opinion this should be scoped in.

7.11.26 P195 “Significant impacts on PROW users are therefore not anticipated and are scoped out of the EIA. A Recreation and Amenity assessment will be undertaken and submitted in support of the DCO Application”

In our opinion this is too late in the process and needs to be kept in scope at the EIA stage. How has Mallard Pass come to this conclusion? The impacts on walkers, cyclists and horse-riders will be significant, with the potential for mental health impacts for those with fewer alternatives. Traversing these PROW with panels and security fencing all around is akin to walking through an industrial plant or a prison, removing any sense of enjoyment or well-being. For horses it could prove dangerous, as the tunnel effect on the bridleway will prove very scary, unlike the norm of greenfield land.

**This absolutely needs to be scoped in to address the strength of public opinion both in Greatford and in other villages. There is no assessment to show the benefits for the community – whether supporting their local economy or improving the social benefits.**

## **8.0 Environmental Topics Scoped Out of the EIA**

### **Heritage**

8.1.13: “Furthermore, mitigation through design (avoidance) can allow any especially sensitive buried archaeological remains (such as human remains) to be safeguarded completely from any disturbance. The desk based assessment and geophysical surveys will aid in the identification of any such locations. Thus, an assessment of buried archaeological remains can be scoped out of the EIA.” Given a geophysical survey of the site has been completed, it is asserted that any assessment of buried archaeological remains **cannot** be scoped out of the EIA until such time as the results of the geophysical survey are in the public domain and aspects requiring “mitigation through design” are adequately pinpointed. Given the roman remains findings in field 36, can the geophysical surveys confirm there are no further roman remains at risk from drilling/piling. (Ref.3.1.12).



## Air Quality

8.25 P209 “it is considered likely that no exceedances of the annual mean objective will be experienced in the vicinity of the Site.” Given Essendine is at the epi-centre for all 3 routes, has this been taken into account?

8.28/29 P211 “it is not expected that a specific air quality chapter will be required in the ES.” Surely a sensitivity analysis should be done to determine if the forecast traffic movements are wrong and considerably higher, will any of the assessment thresholds be breached? This should be explored before taking it out of scope.

## Risk of Major Accidents or Disasters.

8.4.2. P215 “The EIA Regulations do not include the definition of major accidents and/or disasters. For the purposes of the assessment, the following three definitions and accidents and disasters have been used within the context of the Proposed Development:

1. The Control of Major Accidents Hazard (COMAH) Regulations, 2015, defines a major accident as “an occurrence such as a major emission, fire, or explosion resulting from uncontrolled development, leading to serious danger to human health or the environment (whether immediate or delayed) inside or outside the establishment, an involving one or more dangerous substances”.
2. The International Federation of Red Cross & Red Crescent Societies Disaster and Crises Management Guidance provides a useful definition for disaster, which is “a sudden calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community’s or society’s ability to cope using its own resources. Though often caused by nature, disasters can have human origins.”; and 7863\_EIA\_0001 Mallard Pass EIA Scoping Report
3. The Oxford English Dictionary defines an accident as “an unfortunate incident that happens unexpectedly and unintentionally, typically resulting in damage or injury.”

Are these the right and appropriate definitions – “an unfortunate incident” is not how a battery storage fire and explosion will be perceived if it happens?

8.4.10. P217 “Component and equipment of the Proposed Development will be installed in accordance with the relevant Fire regulations and guidance from the Health and Safety Executive. The operational phase of the Proposed Development would involve routine maintenance and servicing of equipment to ensure the safe operation of equipment. Fire equipment and notices will also be provided onsite for the availability of personnel and would be regularly inspected and serviced in accordance with relevant Fire Regulations. The ES will include details on the measures incorporated into the design to minimise any potential impact of Proposed Development resulting from a fire. As such, a separate ES chapter covering risk from fire accidents is not considered necessary.”

The scale of this battery storage will be unprecedented in the UK and upfront design is critical to ensure the safety for the local communities is the highest priority. It is our opinion that a separate ES chapter covering risk from fire accidents is absolutely necessary.

8.4.11. P218 “An outline Battery Safety Management Plan (oBSMP) will be prepared and submitted with the DCO Application. The oBSMP will detail the regulatory guidance reviewed to ensure that all safety concerns around the BESS element of the Proposed Development are addressed in so far as is **reasonably practicable.**” – would that kind of comment be allowed with a nuclear power station?

This is one of the biggest concerns for residents given the evidence of fire safety events with lithium-ion batteries all over the world. The amount of time allocated in this report is negligible. It shows no understanding or respect for the impacts of such an adverse event. The lethal toxic gases, the uncontrollable fires, the environmental damage require more than just a plan, they require thorough design, and full assessment throughout the planning process and need to be scoped in.

## **Human Health**

8.5.5 P220. Will Mallard Pass clarify there are no cable routes in close proximity to PRow? 8.5.6. P220 “Due to interactions with human health covered elsewhere within individual topics of the ES, it is not considered necessary to provide a separate Human Health ES chapter.”

There does not seem to be any recognition or assessment of mental health impacts, just physical health. Therefore health should not have been removed totally from the scope.

## **Conclusion**

Table 10.1 on P230 highlights the extent of areas scoped out of the EIA. Given the unprecedented scale of this project, and the lack of full information and understanding at this early stage in the process, we would ask for a cautious approach to be exercised and for areas highlighted in this report to be recommended to be put back into scope.

Overall our concerns relate to the number of areas that are to be scoped out of the EIA. In some cases there is insufficient early data, and/or an underestimated impact of the issues on receptors. Given the scale of this NSIP project, it is essential nothing is scoped out too early in the process.

Please acknowledge receipt of Greatford Parish Council’s scoping report opinion by return.



Yours faithfully,

Cllr Philip Britton




Chair, Greatford Parish Council


Appendix 1

**Mallard Pass Solar Farm proposed viewpoints**

Viewpoint	Mallard Pass proposed viewpoint	Revised suggestions
1	<p>This viewpoint shows small area of field 29 beyond large mitigation area, set back from the road, so only partially visible. <b>Not the best viewpoint for a montage, should be re-allocated to another area.</b></p>	<p>Turn left of A6121 to Greatford, just down on RHS. Views of 29,30,33, 34,36. <b>Better montage option.</b></p> 
2	<p>This is along the A6121. There is a mitigation area in front of this, and the solar panels will be on a far higher piece of ground. Not clear how far set back the panels will be in field 29 that adjoins field 28. <b>Not the best viewpoint for a montage, should be re allocated to another area.</b></p>	
3	<p>This viewpoint is in a low lying area out the back of Carlby, the panels heading west are on the other side of the elevated railway line. This viewpoint is irrelevant and should be removed. <b>It should not be part of the montage selection.</b></p>	<p>Recommend replacing it at the top of the footpath just outside Essendine, looking east over at fields 28,29,30,33</p> 



4	This point is next to the bridleway and is an obvious choice. However the viewpoint opposite, still on the same bridleway, is stronger.	Just down the same bridleway a few hundred yards under the power lines. This is a 360 panoramic and should be the montage view
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5	This looks out onto an area of mitigation on to field 39 where there will be no panels and it is not next to a footpath.	<p>Recommend moving this further up the road towards Carlby and positioned next to the footpath sign outside Grange Farm that would provide a relevant viewpoint of the panels across field 36.</p> 
6	This is on the wrong side of the railway line with no solar PV fields visible.	<p>The north side of the railway, 50 yards along the bridleway to where it bears to the right, adjacent to field 35. It provides long distance views of the PV panels. Ideal for the photo montage.</p> 

7	<p>This is on a footpath which leaves green lane just after it starts on Newstead Lane. The point chosen is only just into the field and the current scrub land at the field edge is so high is blocks the view across to Wood Farm. The panels are to be located on this field.</p>	<p>These 2 viewpoints on this path are far more representative of the views.</p> 
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8	<p>This point shows clearly the impact of the solar panels when looking across the fields as you pass gateways. Panels will be visible all along the road from Uffington to Essendine though the hedge varies in thickness and height and will afford some screening along parts of the road particularly in summer when in full leaf. This viewpoint is OK.</p>	
9	<p>This viewpoint is restricted with hedgerow which is a feature down Uffington road. I suggest the viewpoint is taken in an open gateway.</p>	

10	<p>This viewing point is on a footpath which leaves the village of Belmesthorpe off Castle Rise. There is no visibility of the proposed solar farm which is up an incline and on the other side of a fully hedged bridleway. There is no logic for it to be included. This should not be a montage view.</p>	No available alternative.
11	This viewpoint is fine.	
12	<p>This view point is located on the B1176 at the point a footpath joins the road between fields 9 and 12. The view point will show clearly the visual impact of the arrays when looking across the fields to Essendine, so relevant for walkers and horseriders. However it is a low point on the road and does not necessarily give a true perspective of the panels from the higher points of the road when travelling from Ryhall to Little Bytham by vehicle.</p>	Also suggest these viewpoints at the Drift junction looking east to Essendine across field 9, and NW in

	<p>Could be a montage option. Also suggest the following points opposite.</p>	 <p>field 2.</p>
<p>13</p>	<p>The hedge is high and dense and so the fields where arrays will be mounted is not very visible at the particular point shown on the byway. It misrepresents the open coppices that flag both sides of the drift and the clear visibility field users will have where the arrays will be mounted. This by way is very well used by walkers, horse riders, cyclists and a variety of other road users.</p>	<p>Alternative suggestions still adjacent to field 13.</p> <p>Good montage point</p> 

14	<p>This is located at Barbers Hill at the most northerly point of the scheme. However the location is on a high, flat &amp; straight piece of road which completely misrepresents the true topography of the area – the south facing slope of the field is not evident and the view point does not give a true indication of the visual impact the scheme will have – this is clearly evident just a 100yds or so further south along the B1176 – see opposite</p>	<p>V slightly further south on B1176 looking down the hill and across towards Essendine. A good montage option.</p>  A photograph showing a landscape view from a road. In the foreground, there is a white sign with the text 'prepared.blown.fairness' and a small logo to the left. The background shows a green field, a line of trees, and a blue sky with scattered white clouds. The view is from an elevated position looking down towards a valley.
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	<p>More suggestions opposite:</p>	<p>Just south of the crossroads B1176 heading to Ryhall looking east across fields 5&amp;6 &amp; beyond.</p>  <p>Heading north on B1176 to Careby looking across field 4</p>  <p>B1176 crossroads looking across to Essendine to fields 5,6,7,8, 10,11</p>  <p>Heading west out of Carlby over the B1176 crossroad on RHS looking west into field 4.</p>
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CEMHD Policy - Land Use Planning,  
NSIP Consultations,  
Building 1.2,  
Redgrave Court,  
Merton Road,  
Bootle, Merseyside  
L20 7HS.

HSE email: [NSIP.applications@hse.gov.uk](mailto:NSIP.applications@hse.gov.uk)

FAO Katherine King  
The Planning Inspectorate  
Temple Quay House  
Temple Quay  
Bristol  
BS1 6PN  
By email only

Dear Ms King

23 February 2022

**PROPOSED MALLARD PASS SOLAR FARM PROJECT (the project)  
PROPOSAL BY MALLARD PASS SOLAR FARM LIMITED (the applicant)  
INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 (as  
amended) REGULATIONS 10 and 11**

Thank you for your letter of 7 February 2022 regarding the information to be provided in an environmental statement relating to the above project. HSE does not comment on EIA Scoping Reports but the following information is likely to be useful to the applicant.

**HSE's land use planning advice**

Will the proposed development fall within any of HSE's consultation distances?

According to HSE's records the proposed DCO application boundary for this Nationally Significant Infrastructure Project is within multiple consultation zones of major accident hazard sites and major accident hazard pipelines.

This is based on the current site boundary configuration as illustrated in, for example, 'Drawing number 7863\_100 Zone of Theoretical Visibility (ZTV) Study Including Woodlands and Settlements - Proposed Viewpoints' within the document 'Mallard Pass Solar Farm Scoping Report Technical Appendices February 2022

HSE's Land Use Planning advice would be dependent on the location of areas where people may be present. When we are consulted by the Applicant with further information under Section 42 of the Planning Act 2008, we can provide full advice.

Hazardous Substance Consent

The presence of hazardous substances on, over or under land at or above set threshold quantities (Controlled Quantities) will probably require Hazardous Substances Consent (HSC) under the Planning (Hazardous Substances) Act 1990 as amended. The substances, alone or when aggregated with others for which HSC is required, and the associated Controlled Quantities, are set out in The Planning (Hazardous Substances) Regulations 2015 as amended.

HSC would be required to store or use any of the Named Hazardous Substances or Categories of Substances at or above the controlled quantities set out in Schedule 1 of these Regulations.

Further information on HSC should be sought from the relevant Hazardous Substances Authority.

#### Consideration of risk assessments

Regulation 5(4) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires the assessment of significant effects to include, where relevant, the expected significant effects arising from the proposed development's vulnerability to major accidents. HSE's role on NSIPs is summarised in the following Advice Note 11 Annex on the Planning Inspectorate's website - [Annex G – The Health and Safety Executive](#). This document includes consideration of risk assessments on page 3.

#### Explosives sites

HSE's Explosives Inspectorate has no comment to make in regards to the proposed development.

#### Electrical Safety

No comment from a planning perspective.

At this time, please send any further communication on this project directly to the HSE's designated e-mail account for NSIP applications at [nsip.applications@hse.gov.uk](mailto:nsip.applications@hse.gov.uk). We are currently unable to accept hard copies, as our offices have limited access.

Yours sincerely,

AJC

Pp Allan Benson  
CEMHD4 NSIP Consultation Team

**From:** [REDACTED]  
**To:** [Mallard Pass Solar](mailto:info@historicengland.org.uk)  
**Subject:** Mallard Pass Solar Farm EIA SCOPING RESPONSE HISTORIC ENGLAND - Your ref EN010127 our ref PL00758842  
**Date:** 07 March 2022 19:49:15

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**Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11.  
Application by Mallard Pass Solar Farm Limited (the Applicant) for an Order granting Development Consent for the Mallard Pass Solar Project (the Proposed Development).**

Dear PINS

We note the proposed green space / enhancement areas within the indicative layout, these appear to coincide with areas of key interaction between the scheme and the setting of designated heritage asset, as such these zones will require detailed consideration in the ES. We note in particular the set-backs at Braceborough, Greatford, Uffington and Essendine, these appear to be a sound starting point in respect of addressing the setting of designated heritage assets (see our GPA2 <https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/heag180-gpa3-setting-heritage-assets/>). It will be important to consider kinetic and fixed point views to, from, between and across the landscape in particular as the church spires appear and disappear as one moves between settlements and over former heath.

We also welcome an iterative approach to the assessment of direct archaeological impacts starting with field walking and geophysical survey – in which respects we refer you to the advice of the County Council Heritage Teams at Lincolnshire Historic Environment Record and Leicestershire & Rutland HER – with Curatorial Advice from Leicestershire County Council and Lincolnshire County Council / Heritage Trust for Lincolnshire as appropriate.

This is a large scheme, landscape scale impacts need to be considered in the context of historic landscape character as well as the setting of specific assets. The structural landscape role of higher areas of former heath lying between more intensively exploited richer soils around medieval nucleated settlement should be considered, (both in terms of environmental opportunities and impacts) as should the particular archaeological character of the proposed development areas at that wider scale.

Yours sincerely

Tim Allen

Tim Allen MA FSA  
Development Advice Team Leader (North)

Midlands Region  
Historic England  
The Foundry, 82 Granville Street, Birmingham B1 2LH

[REDACTED]  
<http://www.historicengland.org.uk/> | [@HistoricEngland](https://twitter.com/HistoricEngland)

**BY EMAIL ONLY**

FAO Katherine King – Snr EIA Advisor  
The Planning Inspectorate

Marc Willis  
Applications Manager  
Planning Services  
Lincolnshire County Council  
County Offices  
Newland  
Lincoln LN1 1YL  
Tel: 01522 782070

4 March 2022

Your Ref: EN010127  
Our ref: NSIP1

Dear Sir/Madam

**SCOPING OPINION REQUEST BY MALLARD PASS SOLAR FARM LIMITED IN RELATION FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE MALLARD PASS SOLAR PROJECT**

I write in response to your letter dated 7 February 2022 seeking this Authority's views and comments on the Scoping Report produced by LDA Design in connection with the above proposal.

The Council has reviewed the information contained within the Scoping Report and offers the following comments which we request the Inspectorate considers in the preparation of its final Opinion.

**General comments**

**Lifespan of development**

Paragraph 3.5.1 - solar developments are typically considered to be 30 to 40 year developments with panel degradation cited as a limiting factor on project lifespan. Despite this the applicant does not propose to specify the operational life of the solar development and therefore is not seeking a time limited consent (paragraph 3.5.1) and states that the EIA will be carried out on the basis that the development is permanent, to ensure a worst case assessment of likely significant effect. If this is the case then the ES will need to assess the impacts of the development as a permanent feature in the landscape including impacts such as the permanent loss of arable farmland should the DCO be granted.

The ES should also include an assessment of the likely impact of component replacement (e.g. batteries and panels) and outline what measures/safeguards will be put in place to ensure that any replacement components are of the same overall

parameters/dimensions/specification etc as those which are assessed as part of the ES and thus unlikely to give rise to new or increased effects have already been identified and assessed. This is necessary given the potential changes in technology that can occur which may result in replacement components varying significantly from those which form part of the current proposal.

### Alternatives

Paragraph 6.5.36 indicates that a consideration of alternatives will be presented within a standalone chapter of the ES and that this will likely involve the analysis of different layouts, scales, technologies adopted, design parameters and site selection. The Council agrees alternatives should be considered and contained as a separate chapter in the ES.

In this section consideration should however also be given to looking at the benefits of keeping the land subject of this project in agricultural use and the potential impact the loss of this land could have on food production in the region.

The assessment of alternative sites should also include a county-level alternative assessment area which considers scope for connection into the National Grid at the locations proposed by the other registered NSIP solar projects currently being promoted within the County and/or other sites that lie within the same proximity to any other suitable National Grid connection points elsewhere. Specific consideration and comparison should be given to any difference in the impacts on agricultural land.

The ES should also clearly set out the main reasons for selecting the chosen option and in this case this should not only include reference to other physical locations considered and discounted (as indicated above) but also include a consideration of alternative site layout(s) and/or a reduced generating capacity as necessary to minimise the extent and loss of Best and Most Versatile (BMV) land within the site.

### Comments on topics identified to 'scoped in'

#### Section 7.3 - Landscape and Visual Impact

- The Council agrees this matter should be 'scoped in' and appropriate assessments included as part of the ES.
- The Council recommends that the following publications be taken into consideration when carrying out the LVIA and added to those referenced in para 7.3.9:
  - i. Technical Guidance Note (TGN) 1/20 - Reviewing Landscape and Visual Impact Assessments (LVIAs) and Landscape and Visual Appraisals (LVAs)', 10th January 2020 by the Landscape Institute; and
  - ii. Technical Guidance Note (TGN) 2/21 - Assessing landscape value outside national designations, May 2021 by the Landscape Institute.
- Due to the limited time given for the Council to review the Scoping Report we have not had chance to visit or check the viewpoints proposed. It is however noted that the representative viewpoints identified are subject to micro-siting and confirmation on the ground and therefore the Council would invite the Inspectorate to make clear in their

response that these are not fixed at this stage and are subject to review and amendment through on-going and subsequent discussions with the Council and other host authorities.

- Paragraph 3.1.17 suggests that individual battery storage containers will be stationed adjacent to central inverters (should these be used) or transformers. It is not yet clear if string or central inverters will be used as part of the development (see para 3.1.14) or how many battery storage containers will be required. If the decision is taken to use central inverters, then the ES must consider the impacts of the battery storage within the final layout in particular in relation to LVIA and noise impacts and we invite the Inspectorate to require that the 'worse case' scenario is tested based on the maximum dimensions suggested.
- See comments in respect of Cultural Heritage with regard to assessing the potential impacts on designated assets including the Grade II Greatfoord Hall; Grade II Uffington Park; Grade II\* Burghley House & Hollywell Hall.

#### **Section 7.4: Ecology and Biodiversity**

- The Council agrees this matter should be 'scoped in' and that appropriate assessments should be included as part of the ES. The Council is also agreeable to the general approach and methodology detailed within the Scoping Report and offers no specific comments on this aspect/topic at this stage.

#### **Section 7.5: Access and Highways**

- The Council agrees this matter should be 'scoped in' and appropriate assessments included as part of the ES.
- The Council is also agreeable to the general approach and methodology detailed within the Scoping Report and offers no specific comments at this stage other than the following:

Construction access routes - paragraph 7.3.31 indicates that three potential access routes are being considered. LCC considers Route 1 to be preferable route from a highway perspective since this provides the significantly shortest distance to the strategic road network as Routes 2 and 3 are considerably longer routes. However, unless the applicant confirms the route prior to submission the ES must consider all proposed routes and any mitigation necessary.

#### **Section 7.6: Noise and Vibration**

- The Council agrees this should be 'scoped in' and appropriate assessments included as part of the ES.
- The Council is also agreeable to the general approach and methodology detailed within the Scoping Report.
- The Council agrees that operational noise associated with the solar array panels is not expected to represent a significant effect and so can be scoped out. However, there is the potential for noise associated with the larger electrical plant and equipment (as is acknowledged within paragraph 7.6.34) and yet paragraph 7.6.41 appears to suggest

that noise impacts during the operation of the development will be scoped out. The Council disagrees with this approach and considers that there is the potential for noise and vibration impacts to arise from the operation and decommissioning of the development and so these potential impacts do need to be assessed and appropriate mitigation measures identified to prevent, reduce and mitigate any impacts identified and included within the ES.

- Paras 7.6.24 of the Scoping Report suggests that updated background noise surveys are not proposed to be carried out. The Council disagrees with this approach and considers updated surveys should be conducted.
- The Council therefore requests that the Inspectorate requires updated background noise surveys to be carried out as part of the ES and that the assessment considers all phases of the scheme the solar park and energy storage area - as is proposed for the Grid Cable Route.

### **Section 7.7 - Water Resources and Ground Conditions**

- The Council agrees this should be 'scoped in' and appropriate assessments included as part of the ES.
- The Council is also agreeable to the general approach and methodology detailed within the Scoping Report.
- It is requested that the Flood Risk Assessment includes, or is accompanied by, a Drainage Strategy that details proposals required as necessary mitigation for the impact of the development on the surface water regime. Any mitigation proposals would need to follow the SuDS hierarchy in CIRIA guidelines.
- Paragraph 3.2.2 sets out the minimum stand-off distance for ditches however these may need to be increased where ditches are owned/maintained by Internal Drainage Boards (IDB). Typically such ditches require a minimum 9m buffer on each side of the ditch in order to allow access for maintenance. The advice of any IDB should therefore be sought and appropriate buffers designed into the final site layout.

### **Section 7.8 – Agricultural Land Use**

- The Council agrees this matter should be 'scoped in' and appropriate assessments included as part of the ES.
- The proposal site comprises of predominately arable fields with the vast majority falling within ALC Grade 3 with an area of Grade 2 towards the southern extent. The National Planning Policy Framework sets out that planning policies and decisions should contribute to and enhance the natural and local environment by recognising the benefits from natural capital, including those from the best and most versatile agricultural land. The loss of such a significant area of BMV would appear to go against the objectives of the NPPF which seeks to protect this natural resource. The loss of such a large natural resource through sterilisation both from the energy park itself and/or any areas given over to create biodiversity net gain areas needs to be demonstrated and justified. Potential alternatives to the loss of this extent of BMV land therefore should be demonstrated through an assessment of alternatives which not only includes



a consideration of sites elsewhere within the County, potential alternative site layouts and/or reduction in generating capacity on this site so as to reduce, minimise or avoid the loss of such large areas of land.

- Paragraph 7.8.5 states *“that in order to inform the assessment an Agricultural Land Classification survey will be undertaken. Given the size of the Site the survey will be carried out at a semi-detailed scale. This will involve in the order of 210 auger locations on a regular 200 metre grid across the site”*. Published guidance at <https://www.gov.uk/government/publications/agricultural-land-assessproposals-for-development/guide-to-assessing-development-proposals-on-agriculturalland#alc> states that *‘for a detailed ALC assessment, a soil specialist should normally make boreholes every hectare on a regular grid on agricultural land in the proposed development area up to 1.2m deep using a hand-held auger’*. This is confirmed within the Natural England Technical Advice Note 49 which states that for a detailed ALC assessment there should be a ‘frequency of one boring per hectare’. Applying this to the proposal site area this would equate to a much greater number of auger samples being required. The Council therefore considers that the information to be presented in any ALC assessment would not be representative unless it is carried out in accordance with the Natural England Technical Advice Note 49.
- The ES should consider the economic effects of a proposed change from arable to low intensity farming but also a comparison of potential increased carbon footprint/impacts that would arise because of the need to transport/import food and crops from elsewhere which would have otherwise been grown on the land. The carbon footprint created by the displacement or removal of this land therefore needs to be properly calculated to ensure that the full carbon gains or benefits of this proposal are accurate.
- The ES should take into account any other forms of development that are proposing to remove 20ha or more of BMV agricultural land that may be being promoted within the Study Area. The in combination cumulative effects of other proposed or permitted schemes in the vicinity of the development should be taken into account and the Council considers it necessary for the ES to also consider the cumulative effect that this and other similar NSIP large scale solar schemes currently being promoted in the County could have. These include proposals at Cottam, West Burton, Gate Burton in West Lindsey and the Heckington Fen Solar Park proposal which is in North Kesteven District/Boston Brough Council area which collectively cover an area of over 4,000ha. The cumulative economic impact and potential effects of these schemes due to the loss of arable agricultural land therefore needs to be assessed.
- As above, the cumulative impact of any increased carbon footprint/impact because of the need to transport/import food and/crops from elsewhere needs to be considered. As a minimum, the Council therefore requests that all and any other similar scale NSIP solar park proposals being promoted within the County be considered when considering cumulative effects.
- The alternatives exercise needs to not only consider alternative sites but also alternative site layouts and potentially a reduction in generating capacity on this site as a means to demonstrate avoidance or minimisation of agricultural land impacts.

## **Section 7.9 – Glint and Glare**

- The Council agrees this matter should be ‘scoped in’ and appropriate assessments included as part of the ES.
- The Council is also agreeable to the general approach and methodology detailed within the Scoping Report and offers no specific comments at this stage other than the following:

At the time of writing a decision has yet to be taken as to whether the PV panels will be trackers or fixed. In any event the ES must consider glint and glare potential in relation to the degree/orientation and any pivot of the panels relative to any nearby properties within and surrounding the site (as well as RAF airspace if needed) to rule out impacts to aviation interests, motorists and sensitive receptors.

### **Section 7.10: Climate Change Impact Assessment**

- The Council agrees this matter should be ‘scoped in’ and appropriate assessments included as part of the ES.
- Paragraph 7.10.10 states that the effect of the development on climate change will be assessed by the evaluation of:
  - the potential emissions associated with the construction and operation of the development, and;
  - the potential savings in emissions associated with the operation of the development as a result of the consequent reduction in use of more carbon-emitting electricity generation methods.

In addition to these two elements, the Council considers it also necessary for the ES to include an assessment of any increase in carbon emissions as a result of the need to transport/import food and crops from elsewhere which would have otherwise been grown on the arable farmland that would be lost or removed from production as a consequence of the development. Such an assessment would enable the full carbon gains or benefits of this proposal to be properly understood. The Council requests that the Inspectorate therefore requires the applicant to include such an assessment within the ES.

### **Section 7.11 - Socio Economics**

- Paragraph 10.1.3 suggests that Socio-economics is to be ‘scoped out’ and however oddly paragraph 7.11 then goes on to present an approach to assessment. This is confusing and should be clarified.
- The Council considers that a consideration of the socio-economic impacts of the development should be carried out and contained as part of the ES and this should not simply focus on impacts in terms of direct and in-direct employment. The Council requests that any such assessment should also include an assessment of the economic impact the loss of arable farmland and crop production would have during the operation of the development and a comparison of this to the economic benefits/gains identified.
- Paragraph 3.5.3 suggests that the land underneath and around the panels could be managed through a combination of sheep grazing and/or hay/silage production in order to maintain the field vegetation during the operational phase of the development. The

applicant should therefore attempt to quantify whether and how there are socio-economic benefits stemming from a change from predominantly arable agricultural use of the site pre-development to pastoral use post-development. Furthermore, it is not clear how this proposed use would be guaranteed or secured given there would not be a material change to the use of the land. Therefore, the Inspectorate must satisfy themselves that this can be secured as part of any proposal to ensure this proposed mitigation measure to off-set or compensate for the loss of arable land is realistic.

- In addition to in-combination cumulative effects from other proposed or permitted schemes in the vicinity of the development, the ES should consider the cumulative economic effect of this and other similar NSIP large scale solar schemes that are currently being promoted in the County. These include proposals at Cottam, West Burton, Gate Burton in West Lindsey and the proposal which is in North Kesteven District/Boston Borough area (i.e. Heckington Fen Solar Park). The cumulative economic impact and potential effects of these schemes in terms of the loss of agricultural land and crop production (assuming these are successful in securing a DCO) therefore needs to be assessed.

### **Comments on topics identified to be 'scoped out'**

The Council disagrees with the proposal to 'scope out' the following topics (as set out in Section 8 and paragraph 10.13) and, for the reasons set out below, requests that the Inspectorate requires these to be considered as part of the ES.

- Cultural Heritage
- Air Quality
- Socio-economics

The Inspectorate is requested to require these topics to form part of the ES and take into account the following comments when forming their final opinion.

### **Section 8.1: Cultural Heritage**

- The Council fundamentally disagrees with the proposal for this matter to be 'scoped out' as part of the ES. Despite initial positive contact with the promoter prior to submission of this Scoping Report the Council is deeply concerned with their proposal to 'scope out' impacts on cultural heritage and has grave concerns on the Cultural Heritage section of the submitted documents. The Council therefore requests that the Inspectorate requires appropriate assessments to be carried out as part of the ES by stating this explicitly within its formal response.
- As part of the Environmental Impact Assessment (EIA) process, a Scoping Report should set out the proposed approach regarding Cultural Heritage, and we are deeply disappointed by this submission with respect to the Archaeology and Built Environment. A sufficient evaluation should be carried out to understand the archaeological potential and to inform a reasonable and appropriate mitigation strategy in the Environmental Statement (ES) which will need to be submitted with the Development Consent Order (DCO) application. The full suite of available desk-based information needs to be competently assessed including all available records, air

photos, LiDAR and local sources. This understanding and the geophysical survey results will inform a robust programme of trial trenching to provide evidence for the site-specific archaeological potential of the development and provide the basis for an effective mitigation strategy to deal with the archaeological impact.

- The Council feels the dismissive approach adopted and suggestion of descope cultural heritage considerations is unacceptable and contrary to professional good practice, planning guidance and EIA Regulations, as well as leaving the potential for massive delays to the work programme and open-ended impact on the project budget. Proposing to descope cultural heritage on the grounds of negligible impact, without having provided the evidential basis through appropriate evaluation work is at best confused and is a catastrophic approach in terms of risk management and project management.
- The Council therefore strongly recommends that cultural heritage is 'scoped in' and that the Planning Inspectorate requires this of the applicant when issuing their formal Opinion.

The following specific comments are also offered:

#### Proposed Methodology

The Council is extremely disappointed by the proposal to descope assessment of buried archaeological remains. This is entirely unacceptable and denotes a fundamental lack of understanding of the requirements of NPPF and EIA Regulations as well as being an intensely high-risk strategy in terms of project management, timetable and budget.

Paragraph 8.1.12 says that *'significant effects on buried archaeological remains are not anticipated. This is not to suggest that important buried archaeological remains are not expected to survive within the Site, but that the size and frequency of the driven piles and cable runs for the solar arrays are so slight that even if their location were to coincide exactly with buried remains there would be no material loss of archaeological interest.'* There is no evidential basis for this statement, or for any of the other statements dismissing the proposal's potential impact on uninvestigated archaeology.

On the contrary, 900ha of solar panel frames *'will be pile driven or screw mounted into the ground to a typical depth of approximately 1.5m'* (see paragraph 3.1.12) with onsite cabling trenches to a depth of 1.3m (see paragraph 3.1.3) as well as the same depth for the connecting cable to the National Grid (see paragraph 3.1.27). This is below the depth of archaeological levels.

Paragraph 8.1.13 proposes to mitigate by design and even avoid human remains. Only desk-based assessment and geophysical survey are proposed, neither of which can identify the location of burials. Archaeology obviously cannot be avoided by design when there has not been sufficient competent archaeological evaluation to determine where it is.

Paragraph 8.1.15 proposes descope the impact upon settings of designated heritage assets. Again, such an approach is entirely unprofessional and inappropriate. Oddly

paragraph 8.1.16 then goes on to present an approach to assessment. This is entirely contrary to the previous sections which have been given over to descope cultural heritage.

Paragraphs 8.1.17 to 8.1.19 give a brief outline for desk-based assessment, geophysical survey and further investigation such as trial trenching to inform the production of a cultural heritage report despite the earlier statements stating that archaeology will be descope. This is very confused and the Inspectorate is therefore requested to seek clarification from the applicant about what exactly is being proposed. In practice, this will form the core work necessary for ensuring the Cultural Heritage Section of the EIA conforms to EIA requirements and it will form the basis for the Cultural Heritage Chapter in the ES.

### Requirements for Environmental Statement

The ES will require comprehensive desk-based research, non-intrusive surveys, and intrusive field evaluation for the full extent of proposed impact areas. The results should be used to minimise the impact on the historic environment through informing the project design and an appropriate programme of archaeological mitigation secured in the DCO.

Regarding desk-based sources, the ES will require:

- Full LiDAR coverage and assessment; full aerial photo coverage and assessment; archaeological reports; relevant documents from the Record Office covering each site; and the Portable Antiquities Scheme (PAS) data must also be consulted.
- Map regression should include all available maps to provide a reasonable understanding of the development and time depth of the sites.
- The HER search should be for at least 5km for visual impact on designated assets and a minimum 1km search beyond the extent of the full impact zone for non-designated assets.

### Full impact zone

We note the Scoping Report only deals with the red line boundary. The full potential impact zone including all proposed connection corridors as well as the red line boundary area will need to undertake sufficient evaluation to allow for a programme of suitable mitigation. The full extent of the proposed impact area including the connector route corridors must be included in the evaluation process as archaeological impacts and subsequent mitigation have the potential for significant financial and scheduling impacts.

The full potential impact zone will require geophysical survey to identify site-specific archaeological potential and to inform a programme of archaeological trial trenching and subsequent mitigation.

Sufficient evaluation is essential in informing the selection process and in ensuring the subsequent design and work programme is devised with an understanding of the level of archaeological work which may be required before and during the construction phase. Pre-determination evaluation of the cable connection corridors can be very useful with informing a decision on the most cost effective and viable route.

### Geophysical Survey

Before commencement of any geophysical survey a Written Scheme of Investigation must be submitted with details of the methodology, practice and extent of the work to be undertaken and what quality control mechanisms have been put in place.

For geophysical survey work involving multiple companies a single Written Scheme of Investigation (WSI) for the geophysical survey should be prepared that all contractors adhere to. This must include appropriate quality and control measures to ensure consistency of data recovery across the site. The proposed cable route(s) must be included in the survey. Separate reports for each contractor should be supplied in full with an overarching report presenting the combined results as this will be the basis for the subsequent evaluation trenching.

### Evaluation Trenching

Trenching results are essential for effective risk management and to inform programme scheduling and budget management. Failing to do so could lead to unnecessary destruction of heritage assets, potential programme delays and excessive cost increases that could otherwise be avoided. A programme of trial trenching is required to inform a robust mitigation strategy which will need to be agreed by the time the Environmental Statement is produced and submitted with the DCO application.

### Settings Assessment

Regarding a competent Settings Assessment, the application site may affect the setting of several Scheduled Monuments as well as a large number of designated and non-designated heritage assets. The Settings Assessment/Heritage Impact Assessment needs to begin from an understanding of the significance of each of those assets in order to assess the potential impact of the development on them and put forward any potential benefit or mitigation of proposed negative impact.

Paragraph 7.3.35 proposes descoping Burley House and Holywell Hall Park as they are visually distant. Houses, their parks, their estates and their landholdings have interrelationships, establishing the significance of these relationships is an essential component for determining potential impact. Paragraph 8.1.15 also proposes scoping out 'an assessment of the effects on the heritage significance of these assets (historic buildings, structures, monuments and the historic landscapes)'. No descoping should occur until there has been a robust assessment of significance which can be used as the basis for determining the potential impact of the development upon it.

### Overall conclusions on Cultural Heritage

The EIA will require the full suite of comprehensive desk-based research, non-intrusive surveys, and intrusive field evaluation for the full extent of proposed impact. The results should be used to minimise the impact on the historic environment through informing the project design and an appropriate programme of archaeological mitigation. The provision of sufficient baseline information to identify and assess the impact on known and potential heritage assets is required by Infrastructure Planning (Environmental Impact Assessment)

Regulations 2017 (Regulation 5 (2d)), National Planning Statement Policy EN1 (Section 5.8), and the National Planning Policy Framework.

The EIA will need to contain sufficient information on the archaeological potential and must include evidential information on the depth, extent and significance of the archaeological deposits which will be impacted by the development. The results will inform a fit for purpose mitigation strategy which will identify what measures are to be taken to minimise or adequately record the impact of the proposal on archaeological remains.

This is in accordance with The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 states *"The EIA must identify, describe and assess in an appropriate manner...the direct and indirect significant impacts of the proposed development on...material assets, cultural heritage and the landscape."* (Regulation 5 (2d))

### **Section 8.2: Air Quality**

- The Council disagrees with the proposal for this matter to be 'scoped out' as part of the ES and requests that the Inspectorate requires appropriate assessments to be carried out as part of the ES by stating this explicitly within its formal response. This would be consistent with the approach adopted on over NSIP projects that have already gone through the scoping stage and received a response from Inspectorate (e.g. Heckington Fen Solar Park).
- The Scoping Report states that impacts on air quality would be mitigated through the outline Construction Environmental Management Plan (oCEMP). In the absence of detailed information regarding projected HGV movements, the Council does not consider that an assessment of construction air quality effects can be scoped out. The ES must provide up to date information on the anticipated construction programme and the predicted number of HGV movements to confirm that relevant thresholds for air quality assessment are not exceeded or provide a detailed air quality impact assessment.

### **Section 9: Cumulative Assessment**

- Paragraph 9.1.3 - in addition to in-combination cumulative effects from other proposed or permitted schemes in the vicinity of the development, the ES should consider the cumulative effect of other similar NSIP large scale solar schemes that are currently being promoted in the County. These include 3 proposals in West Lindsey (i.e. Cottam, West Burton and Gate Burton) and a further proposal which is in North Kesteven District/Boston Borough (i.e. Heckington Fen Solar Park). Whilst it is accepted these schemes are not located within the immediate area of this site, they are similar large-scale projects that will occupy large swathes of agricultural land present within the County. The cumulative impact and potential effects of these schemes (assuming these are successful in securing a DCO) therefore needs to be assessed. Whilst these schemes are at the pre-application stage and full details are not yet available, indicative plans have been produced and therefore the ES should include commentary on the cumulative impacts on the topics included in the ES from the other solar schemes in the area.

### **Miscellaneous – Community Concerns/Comments**

Finally, in addition to the above comments, the Council has also been sent and received a copy of comments and views on the proposed Scoping Report prepared by a local action group 'Mallard Pass Action Group'. Attached to this response is a copy of their response/comments which we have been asked be brought to the attention of the Inspectorate. The Council recognises that local residents and communities have the benefit of local knowledge and so is supportive of their involvement and comments at this stage and invites the Inspectorate to therefore take these comments into account and, where considered necessary, require appropriate assessments or information to be provided as part of the ES by stating this explicitly within its formal response.

I trust the information and comments set out above are useful and should you seek clarification on any of the issues highlighted above please feel free to contact Marc Willis (Applications Manager) [REDACTED]

Yours faithfully

*Marc Willis*

**for Neil McBride  
Head of Planning**

Encs.

Mallard Pass Scoping Request – review by the committee of Mallard Pass Action Group and accompanying Mallard Pass Solar Farm proposed viewpoints



## Mallard Pass Scoping Request – review by the committee of Mallard Pass Action Group

We have paid particular attention to the objectives of this scoping exercise, notably:

- The potential significant environmental effects which require assessment
- The assessment methodology for each environmental topic proposed to be scoped into the EIA process
- Sources of information
- Issues of perceived concern
- Any other areas which should be addressed in the assessment

Overall our concerns relate to the number of areas that are to be scoped out of the EIA. In some cases there is insufficient early data, and/or an underestimated impact of the issues on receptors. Given the scale of this NSIP project, it is essential nothing is scoped out too early in the process.

1.1.1. P11. States the generation of an **anticipated 350MW**. Should it not be more definitive and explain the underlying assumptions that arrive at 350MW.

1.2.2 P12 A developer of an NSIP project should be able to demonstrate effective delivery of similar type projects. Windel only states '**projects** ranging from 10MW to 320MW'. When previously questioned in the public consultation, they could not confirm any projects actually completed.

2.1.1 P18. Given the MP have clearly identified 54 agricultural fields, the exact size of the development should be clear. It states 'approximately 900Ha'. This report is about assessment methodology based on detailed information.

2.4.2 P20. States: "The Site is predominantly located in Flood Zone 1, which is an area classed as having a low risk from fluvial and tidal flooding (less than 1 in 1,000 annual probability, as indicated by the EA Flood Map for Planning). The Site is predominantly located within an area of very low risk from surface water flooding. Areas of low to high surface water flood risk are located in the northern and western and central areas of the Site, associated with the West Glen River and its tributaries."

Firstly this mentions the **site**, MP should consider impacts **outside of the site** as well and draw upon local information from residents which can provide evidence of both pluvial and fluvial flooding. Mallard Pass has acknowledged some flood issues on site and the need to elevate panels, we would challenge this baseline information as not being representative and inclusive.

2.9.3. P25. "The solar PV Site is characterised by a high groundwater vulnerability. The northern and western extent of the solar PV Site is located within Zone II (Outer Protection) Source Protection one (SPZ)

- Figure 2.1 P26. The chart is misleading as the red/orange denote the solar PV site, when in fact those areas also include all the mitigation areas.
- Figure 2.6 P30. Water Resources and Flood extents. This chart does not show the impact on Greatford outside the site, and it only highlights 1 in 20 as worst case scenario. As above 2.4.2 we know there is ongoing flooding in Greatford and the bottom of Essendine hill on a regular basis.

3.1.8 P33 Tracker panels could cause different levels and direction of glint and glare depending on time of day. Scoping document should include this point.

- Plate 1 and Plate 2 images of panels – can Mallard Pass ensure the pictures are representative of the panel dimensions given - they look a lot lower, especially when you consider you need to add the elevation off the ground to the panel dimensions.

3.1.12. P36 "The frames upon which the solar PV panels will be mounted will be pile driven or screw mounted into the ground to a typical depth of approximately 1.5m, subject to ground conditions. The option to install concrete blocks known as "shoes" may also be considered, avoiding the need for driven and screw anchored installation, therefore minimising ground disturbance." This decision is key and there will be significant ground disturbance with pile driven or screw mounted frames, so this worst case scenario must

be reflected on the impacts to soil compaction increasing flood risk to bio-diversity disturbance. With the recent find of the Roman mosaic in Rutland, and the finding in 1961 of a Roman grave with human remains within the Mallard Pass site outside Braceborough, the human remains of which are held by the University of Cambridge, it is highly likely that further archaeologically significant remains will be on site. These are very likely to be disturbed by the proposed piles.

3.1.14. P36. "There are two options for inverters." MP need to clearly state the maximum adverse effects of their choice, but importantly should be clear why there is uncertainty. Ref EN-1 2.49.17

3.1.18. P37. "The footprint of the transformers will typically be 12.5m x 2.5m and 3m in height. The configuration of equipment will depend on the iterative design process and influenced by technical as environmental factors." As above they should specify why there is uncertainty and maximum impact scenario of a design.

3.1.21. P37 "The configuration of equipment will depend on the iterative design process as influenced by technical and environmental factors." As above, too vague.

3.1.29. P40 "A fence will enclose the operational area of the Proposed Development. The fence is likely to be a 'deer fence' (wooden or metal) and approximately 2m in height. Pole mounted internal facing closed circuit television (CCTV) systems installed at a height of up to 3.5m"

What is their rationale for 2m high deer fencing, it is too low and the deer will try and jump it and some will be injured. Why is the CCTV so high?

"Clearances above ground, or the inclusion of mammal gates will be included permit the passage of wildlife". Need more detail on clearance or gates and exact wildlife expected to go through.

3.1.30. P41 "For security requirements, operational lighting would include Passive Infra-red Detector (PID) systems which would be installed around the perimeter of the Proposed Development." There is no consideration for the impact on wildlife, particularly light-sensitive animals and how night-time lighting would affect their normal habitat. How sensitive will the PID be, what animals could trigger it and affect others, how long would it stay on?

3.1.31. P41 "The lighting of the primary substation would be in accordance with Health and Safety requirements, particularly around any emergency exits where there would be lighting, similar to street lighting that operates from dusk. Otherwise there would be low level lighting on specific operational units that would again operate from dusk. All lighting would seek to limit any impact on sensitive receptors." It needs to assess the sensitive receptors and how they will be affected and whether this has a negative impact on their habitat.

3.1.37 P43 Battery Energy Storage System.

Incredibly these have not been included in the section on Risk of Major Accidents and/or Disasters. Indeed Risk of Major Accidents and/or Disasters has been "scoped out". The type of battery has not been specified - it is highly likely that Lithium-ion batteries will be used.

Lithium-ion batteries can and have failed leading to electrochemical reactions. These reactions do not require oxygen and can spread rapidly giving rise to "thermal runaways." Normally, and incorrectly referred to as a fire. The only method of dealing with "thermal runaways" is cooling with large amounts of water until the reaction ceases. The electrochemical reaction emits toxic gases including hydrogen fluoride. Explosive gases are then emitted which can caused large explosions. There are numerous instances all over the world of serious battery fires and toxic explosions.

Scoping should include design of battery containers to prevent electrochemical reactions, detection, suppression and action to be taken to cool the reaction with sufficient quantities of water. Batteries were included in the Sunnica Energy Farm Environment Impact Assessment Scoping Report and in the Cleve Hill Solar Park Environmental assessment, so there is a precedent for it to be included in the scoping report for Mallard Pass.

Table 3.1: P44 “Minimum Offsets to Landscape and Ecological Features and Designations” table. Are these just statutory minimums adopted? Would it be better to also show a maximum as these offsets do not demonstrate full acknowledgement of the importance for wider bio-diversity gains. It shows little sensitivity to many of the receptors.

3.2.3. “The existing Public Rights of Way (ProW) that cross the Site will be retained and incorporated within multifunctional green corridors. Subject to the construction phasing and methodology there may be a requirement to temporarily divert a public right of way during the construction phase, the details of which will be sought to be agreed with the relevant key stakeholders, with an appropriate temporary alternative provided.”

There would need to be a clear risk assessment of diverting or removing a PROW during construction, understanding the consequent behavior of the walker, horse rider or cyclist. This needs to be clearly scoped due to safety and well-being issues.

3.2.4 P45 “Potential areas for mitigation and enhancement as identified on Figure 3.1 will also provide areas for green infrastructure and potentially be used to deliver a 10% net gain in biodiversity”.

What does “potentially be used” suggest – further clarity required. If not the bio-diversity gain, then what? Bio-diversity gains need to be quantified and qualified and over what time period. It is not a pure volume metric, it has to be determined through its appropriateness to each habitat and should be measured on a quality index. Every mitigation area will have different needs. It will need to be proven how a bio-diversity gain is maintained through careful management. Further clarity on all this methodology is required.

3.4.1 P46. Construction. Due to start in 2026. Other published Mallard Pass documents say 2024. Can they clarify.

3.4.5 P48. AIL loads. Mallard Pass identified the potential need for temporary localised road widening, there is no mention of assessing the likely impact on bio-diversity and other receptors. The road in question off the A1 between Great Casterton and Ryhall is very windy and is bounded by hedgerow. Equally there are limited options between Ryhall and Essendine.

3.4.8 P48 “it is anticipated that during the peak construction period, there could be 30 Heavy Goods Vehicles (HGV) deliveries per day, which equates to 60 two-way movements”. Looking at other solar farm NSIPs, like Sunnica and Cleve Hill, these estimates look low which will have a knock-on effect of all the assumptions made about traffic impacts, noise impacts and air pollution impacts. There should be greater clarity on the assumptions underpinning these numbers.

3.4.9. P49 “Temporary Construction Compound. During the construction phase, a primary construction compound is expected to be located onsite with one or more temporary secondary construction compound(s) provided at different locations throughout the solar PV Site, as well as temporary roadways, to facilitate access to all parts of the solar PV Site. The details of which (including location, scale and duration) will be set out and described within the ES”.

This is fundamental to the whole traffic plan, how can assumptions be made about traffic loads and routing without stating where these temporary compounds will be. More information is required upfront as they may be many significant impacts.

3.4.10 P49 Construction Reinstatement and Habitat Creation . “A programme of construction reinstatement and habitat creation will commence during the construction phase”.

The underlying grass should be established well before (at least 2 years) construction starts so as to give some resilience to the soil being run on and compacted during construction, established grass will recover far more quickly and provide more protection from flooding and sediment loss than grass established during or after construction. There is no indication of these considerations in the report. Also the plan should consider ground conditions and work should not be undertaken on wet soils, as it will create long term compaction leading to poor water infiltration and increased flood and sediment loss.

### 3.5. Operation

3.5.1. P50 “The operational life of the Proposed Development is not proposed to be specified in the application and the Applicant is not seeking a time limited consent.”

Is it realistic to assume the life of a solar farm is unlimited. Surely there will be a time limit to the technology as newer more efficient technologies come on board. Equally there will be a life span of the components. They will need to be replaced every 25 years, impacting the receptors during the operational phase. If any part of the site is deemed non-operational, will it be automatically decommissioned?

The land may need to be returned to some other function deemed more important at a future date, should the planning lifespan be unlimited?

3.5.3.P50 “The land underneath and around the panels **could** be managed through a combination of sheep grazing and/or hay/silage production in order to maintain the field vegetation during the operational phase of the Proposed Development”.

“Could” is very vague. The method of management here is key to ensuring the right bio-diversity is maintained and flood risk is fully mitigated by reducing unnecessary compaction. There seems little acknowledgment of needing a clear assessment of pasture management, noting all key receptors. Have they fully explored the options?

3.7.3 P53 “A series of Design Principles will be developed for the Proposed Development. The Design Principles for the Proposed Development will align with the core purposes and ambitions of the ‘Design Principles for National Infrastructure’ which are Climate, People, Places and Value.”

“Principles should act as reminders to the delivery organisation, a steer in the right direction, and a means of restoring focus to the big picture...Design Principles should be a point of departure, setting out a common understanding [of] the issues to be addressed.” (Developing Design Principles for National Infrastructure (NIC, 2018)).”

Taking Value as an example:

- Provide wider economic and supply chain benefits, and a positive legacy for the communities in and around Mallard Pass Solar Farm;
- Respect the wider landscape and the intrinsic value of the countryside and natural environment;
- Respect and respond to features of heritage value.

Taking People as an example:

- Engage openly and transparently with local communities, stakeholders and neighbours, making use of local knowledge to improve our project;  Consider feedback carefully and engage and respond meaningfully;
- Behave as a considerate neighbour through both construction and operation;
- Respect public amenity.

What method and process will they use to assess the above are delivered?

4.1.2. P57 “Consultation alongside the EIA process is critical to the development of a comprehensive and proportionate ES. The views of statutory and non statutory consultees are important to ensure that the EIA from the outset focuses on the environmental studies and to identify specific issues where significant environmental effects are likely, and where further investigation is required”.

Please check Mallard Pass’s statutory and non-statutory lists. They have some errors and inconsistencies in relation to cross county (Lincs & Rutland) coverage with certain organisations.

4.2.2. P58 “All responses received during consultation are being carefully considered and taken into account in the development of the Proposed Development and a consultation summary report has been released at the same time as this EIA Scoping Request.”

The Scoping request was 7<sup>th</sup> Feb, the consultation summary report booklet was received in the post 24-25<sup>th</sup> February.

5.4.7. P63 “Paragraph 4.2.2 of the NPS states that: “To consider the potential effects, including benefits, of a proposal for a project, the IPC [now PINS] will find it helpful if the applicant sets out information on the likely significant social

and economic effects of the development, and shows how any likely significant negative effects would be avoided or mitigated. This information could include matters such as employment, equality, community cohesion and well-being.” How will they demonstrate community cohesion and well-being, what methodology will they use?

5.5.5. P67 Section 2.48 of the Draft NPS EN-3 sets out key influences that developers should consider when selecting sites for solar development” eg. Proximity of a site to dwellings – why is there no minimum agreed buffer in their offsets list?

5.5.8 P67 “Draft NPS EN-5 includes a new section on ‘Environmental and Biodiversity Net Gain’ at Section 2.8, which states that when planning and evaluating a projects contribution to environmental and biodiversity net gain, it will be important, for both the Applicant and examining Authority, to recognise that “the linear nature of electricity networks infrastructure allows excellent opportunities to: i) reconnect important habitats via green corridors, biodiversity stepping zones, and re-establishment of appropriate hedgerows; and/or ii) connect people to the environment, for instance via footpaths and cycleways constructed in tandem with biodiversity enhancements.”

Please request clarity on how these will be delivered.

5.7.7. P71 “Policy RE1 ‘Renewable Energy Generation’ of the SKDC Local Plan states that proposals for renewable energy generation will be supported subject to meeting the criteria outlined in Appendix 3 ‘Renewable Energy’ of the Local Plan and provided that:

- The proposal does not negatively impact the district’s agricultural asset;
- The proposal can demonstrate the support of affected local communities;
- The proposal includes details of the transmission of power produces;
- The proposal details that all apparatus related to renewable energy production will be removed from the site when power production ceases;
- That the proposal complies with any other relevant Local Plan policies and national planning policy.”

It is critical this underpins SKDC’s assessment of Mallard Pass’s proposed scheme.

6.3.1. P74 “Whilst every ES should provide a full factual description of the development, the **emphasis** of Schedule 4 (of the EIA Regulations) is on the "significant" environmental effects to which a development is likely to give rise.”

Emphasis does not mean to the preclusion of other impacts. How significant is evaluated can be differently interpreted.

6.5.3. P75 “The ‘future baseline’ scenario will describe the changes from the baseline scenario as far as natural changes can be established, although it is noted without the Proposed Development that the solar PV Site would continue to be intensively managed for agricultural purposes.” The baseline should consider likely forthcoming changes as landowners diversify eg. the and is used for bio-energy fuels, re-wilding.etc

6.5.19.P80 “Cumulative effects with other schemes will be assessed as part of the EIA process.”

The other schemes need to be identified first before any areas are scoped out – this is not obvious in the recommendations of this report. The scheme might not be solar eg. traffic impacts for new housing, quarry, water pipeline and other solar farms in the area.

6.5.27. P81 “Mitigation measures are developed as part of an **iterative** process and therefore will be developed throughout the EIA process in response to the findings of the initial assessments.”

How can so many areas in this report be scoped out if a number of mitigation measures are going to be iterative?

6.5.30. P83 “Our approach to EIA is not to undertake an assessment of environmental effects where primary or tertiary mitigation measures are sufficient to avoid a likely significant effect occurring. This approach allows the ES to be focussed solely on the likely significant environmental effects and not theoretical significant effects that will not materialise as a result of the design or standard construction practices.”

Is this wholly valid?

6.5.35. P84. Regulation 14(2)(d) of the EIA Regulations also requires that the ES should include: "A description of the reasonable alternatives studies by the applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment..."

This is not apparent in any documentation so far. Can this be reviewed.

7.3.2 P89 "A number of viewpoints have been identified from within and around the Site from publicly accessible locations to understand the nature of existing views towards and within the Site to inform the assessment. **PLEASE SEE SEPARATE "viewpoints.doc" which has reviewed all the proposed viewpoints and the choice of locations for photomontages.** As locals we are best equipped to understand the viewpoints for both transient and amenity users.

7.3.3 P90."However, the gently undulating terrain combined with woodland stands, vegetated field boundaries and roadsides act to provide a wooded backdrop to many views and, therefore, screening the Site from further afield, limiting distant views from outside of the Site."

This baseline assessment is not the case for a large proportion of the site which has open views. These statements are misleading.

7.3.15. P95 "The study area includes the settlements of Essendine, Ryhall, Belmesthorpe, and fringes of Stamford, scattered properties as well as recreational routes and PRow (footpaths, bridleways etc.) and local roads."The viewpoints cover a wider area than listed including the outskirts of Carlby, Braceborough, Aunby, Pickworth etc.

7.3.17 p95 Grade II\* **Burley** House RPG (approximately 1.5km south), (considered as part of landscape value); - should be Burghley House – error repeated throughout.

7.3.20. P96 A preliminary assessment from desk-study and fieldwork indicates that potential landscape character and visual effects would likely be limited to the solar PV Site and its local context up to approximately 500m east and south, and 1km west and 2km north. Areas at greater distances from the Site in these respective directions are **unlikely** to experience any notable or perceptible change to their prevailing characteristics, owing to the limited intervisibility of the Proposed Development as a result of intervening vegetation, existing built development and landform.

This is a vague statement and needs to be backed up with robust data.

7.3.21. P97. "The representative viewpoints have been selected from publicly accessible locations and generally where the greatest potential effects are anticipated to be experienced. The viewpoint locations represent a wide range of receptors, providing a 'sample' of the potential effects from the locality, with locations purposefully selected to illustrate the range of visual effects; or to specifically ensure the representation of a particularly sensitive receptor." **Assessment of viewpoints covered in separate 'viewpoints.doc'.**

7.3.22 P97 "we propose to undertake rendered photomontages for years 1 and 15 of the Proposed Development from Viewpoints 1, 2, 3, 10 and 11 to demonstrate the views" **Assessment covered in separate 'viewpoints.doc'. Most of the photomontages selected by Mallard Pass do not give a representative view of the solar panels.**

7.3.27 P91 "The reversible nature of the Proposed Development means that the landscape can be returned to its former agricultural use, should it be decommissioned".

This makes a huge assumption that the soil will be capable of returning to agricultural farming. What evidence is there to underpin this assumption?

7.3.37. P104 "Early and continued development of the design has identified potentially affected settlement fringes and residential properties and resultantly, the proposed built solar development footprint has been set back considerably from these boundaries (e.g. around Essendine), providing a sufficient buffer between these receptors and Proposed Development, to avoid the potential risk of 'overwhelming' or 'over-bearing' visual effects to residential properties. As

such, residential amenity will not be assessed within this LVIA and is scoped out of the EIA. A Residential Visual Amenity Assessment will be undertaken and submitted as part as a standalone report as part of the DCO application.”

**Given the level of feedback to the first consultation it is evident that residents feel their visual amenity is still heavily affected. Whether they live next to the PV site or close to it, in their day to day life the visual impact is significant. The level of detail on mitigation so far does not alleviate the visual concerns, so this should not be scoped out at the next stage.**

## Ecology

7.4.7. P106 “The details of the surveys carried out and the baseline conditions identified are set out in the Ecological Baseline report provided at Appendix 7.2”

There are concerns about the timing, range and extent of some of these surveys not being sufficiently robust to provide an accurate assessment of wildlife present. Eg.

- Great crested eDNA should be done between mid April and end June. They took samples on 29 April, which is within the timing, but is still a bit early. Evidence of GCN in Braceborough shows they appear in May.
- Phase 1 habitat survey - end of March and end April is quite early, especially for many flowering plants.
- Wintering birds - should be monthly in Winter (Dec-Mar). Surveys only undertaken in Nov and Dec, so inadequate. No detail on weather conditions on the visits which could affect the result.
- Bats should be surveyed May - Sept, but they didn't survey for them explicitly.
- Other protected species surveys Appendix 2.30: Surveys for foraging and commuting bats, roosting bats, hazel dormouse, reptiles, invertebrates and plants (detailed botanical survey) were not undertaken, despite some habitats on Site being suitable for these species.

7.4.23 P110 “All the hedgerows on Site are considered to meet the description of the Hedgerows HPI”.

Given hedgerows are an HPI, the solar PV should be far more sensitively positioned to enable the best bio-diversity to develop. What basis has been used to set the margins?

7.4.25 P110 “The west Glen river has the potential to meet the description of the Rivers HPI (Maddock, 2011) based on the presence of aquatic species and water quality and hydrological parameters, although this was not assessed in detail.”

Should this not be further assessed given the likelihood of it being an HPI?

7.4.49.P116 “No records of polecat *Mustela putorius* were returned by the LRC or LRERC but this species is reportedly present on the western edge of the Site along the Drift (information supplied by Tom Tew of Naturespace). This species is an SPI.”

Polecat has been seen near Banthorpe lodge. “ Further investigation required.

7.4.76. P123. Designated sites: “ however, accidental damage and other direct or indirect effects may occur to the the Ryhall Pasture and Little Warren Verges SSSI and Toletorpe Road Verges SSSI, adjacent to the Site. Accidental damage will be avoided by implementing appropriate control measures during the construction stage (tertiary mitigation).” Due to the nature of the Proposed Development, no impacts to the SSSIs are likely to occur as a result of noise or air pollution.”

Is this assumption valid? There will be pollution from the considerable amount of lorries using a very narrow road not just for the new battery storage facility but for access to the PV areas on that side of the site. Also the proposed mitigation of fencing may not be at all viable as roads are not wide enough already. The verges need to be protected and the fencing process in itself could cause damage.

7.4.77 P 123 “Potential adverse impacts to the integrity of statutory designated sites through loss of supporting habitat is scoped out of the EIA for all phases”.

That is a contradiction to the issues previously highlighted and should not be scoped out.

7.4.89. P127 “During the operational phase it is unlikely that any impact would arise on badgers and therefore is scoped out of the EI”.

There needs to be more survey work to understand the badger behaviour during operation and this should not be scoped out. Experience has shown they create new setts and move around, farmers are constantly having to be careful when using machinery. There have been issues recently close to the site, of badgers digging next to the gas pipeline. There were no surveys in the woodland, therefore limited picture of their habitats.

7.4.95. P128 “No impacts to hazel dormouse during the operational phase are likely to occur.” These are therefore scoped out of the EIA.”

Hazel dormice have been seen close to the site, should they be scoped out?

7.4.98. P129 Other mammals P128 “Due to the nature of the Proposed Development, no impacts are likely to arise during the operational phase. These are therefore scoped out of the EIA.”

The impact on brown hares and their behaviour needs to be assessed. Will the 30x30 gates provide sufficient access to the PV area or will there be significant injury/death due to fencing next to roads?

7.4.103 P130 “Therefore, impacts to birds during the operational phase of the Proposed Development is scoped out of the EIA.”

Further review needs to be done on the impact of ground nesting birds. ie. what kind of ground cover do different ground nesting birds require to ensure a safe undisturbed habitat. What kinds of maintenance activity (sheep grazing, mowing) will disturb that habitat?

7.4.107. P131 Amphibians “The Site supports few terrestrial habitats with the potential to support amphibians and these are proposed to be retained. All ponds are also proposed to be retained and none within the Site, or adjacent to it, were found to support GCN, though common toad may be present.”

There are GCN in Braceborough and therefore likely to be in other ponds on the site, the survey was conducted at the wrong time to identify their presence, further investigation is required.

7.4.111 P132 Invertebrates. “Operational impacts to invertebrates are scoped out of the EIA.”

There is insufficient data available, no survey work was conducted. There needs to be a better understanding as the compaction impacts on the soil and how the changes from agriculture to solar PV land affects their habitat.

7.4.115. P132 “During the operational phase of the Proposed Development, no impacts to protected species are likely to occur as:

- The lighting scheme will be designed to avoid artificial lighting on linear features (including hedgerows and water courses), woodland and other retained or created habitats. This will avoid adverse effects on bats, dormice, otter, water vole, amphibians, birds and other SPIs.
- Onsite operational traffic will be minimal and limited to maintenance vehicle movements at very low intensity, with a negligible risk of accidentally injuring or killing any protected or notable species such as wild mammals, amphibians, reptiles or birds.
- No regular presence or work is envisaged onsite leading to disturbance of retained or created habitats.

The above is an assumption and a statement and not backed with clear evidence or assessment. They cannot define the impacts clearly as there is no information on the type of management activities in operation and the different impacts from each activity. Mowing under panels is different to grazing sheep to window-cleaning the panels to using machinery to take haylage - all have different impacts.



7.4.116. Consultation. P133 “The consultation process to be undertaken will involve consultation with the Ecology Officers for Leicestershire, Rutland and Lincolnshire County Councils. Non-statutory consultees such as the Wildlife Trusts will also be approached. These stakeholders will be provided with the summary of the baseline of ecological conditions, the general proposals and the principals which will be used for the detailed design of the Proposed Development.”

With so many areas scoped out of the operational EIAs, and only preliminary data and survey work so far, how can the stakeholders receive an informed baseline of information?

**A report from Natural England: Evidence review of the impact of solar farms on birds, bats and general ecology (NEER012) 2017:**

“When considering site selection for utility scale solar developments it is generally agreed that protected areas should be avoided. This is reflected in the scientific literature where modelling approaches include many factors such as economic considerations and visual impact but also often avoid protected areas such as SPAs. This is echoed by organisations such as Natural England and the RSPB that recommend that solar PV developments should not be built on or near protected areas. As sensitive species and habitats are not necessarily restricted to the geographical boundaries of protected areas, it is imperative that research is undertaken into the potential interactions between solar PV arrays and biodiversity especially sensitive habitats and species.”

“...concerns have been raised that solar PV developments have the potential to negatively impact a broad range of taxa including birds, bats, mammals, insects and plants. In light of this, it is highly recommended that research is undertaken into the ecological impacts of solar PV arrays across a broad range of taxa at multiple geographical scales.”

**Given these conclusions, it is too early in the process to suggest that so many areas are scoped out of the EIA.**

## Highways

7.5.39/40. P143. “The IEMA Guidelines for the Environmental Assessment of Road Traffic identifies two broad rules-of-thumb which could be used as a screening process to determine the scale and extent of assessment. These rules are summarised as follows

- Rule 1 – include highway links where traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%).
- Rule 2 – include any other specifically sensitive areas where traffic flows have increased by 10% or more.

Any links within the study area that fall below these thresholds will be scoped out of the assessment, unless specifically requested to be incorporated by key stakeholders or the local Highway Authorities.” **The fundamental question is whether the vehicles movements have been accurately forecast. This affects all associated scoping assumptions.** If you refer to Sunnica’s CTMP [https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010106/EN010106-001865-SEF\\_ES\\_6.2\\_Appendix\\_13C\\_Framework%20Construction%20Traffic%20Management%20Plan%20and%20Travel%20Plan.pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010106/EN010106-001865-SEF_ES_6.2_Appendix_13C_Framework%20Construction%20Traffic%20Management%20Plan%20and%20Travel%20Plan.pdf), you will see their level of vehicle movements for a 2400 solar PV area. Mallard Pass is disproportionately low.

7.5.42. P144 Sensitive receptors.

- Route 1: should list other drivers at this critical Great Casterton T-junction after having come off the A1; users of the villages of Ryhall & Essendine.
- Route 2. There are 2 primary schools not listed in Uffington; users of the villages of Tallington and Uffington; users of the town of Stamford.

All of these are sensitive receptors. Aside from noise, pollution, safety is a major consideration.

7.5.44. P145 “Potential Effects The potential effects to be assessed during the construction phase of the Proposed Development on those links that exceed the thresholds set out at paragraph 7.5.39 are as follows:

- Severance;
- Driver Delay;
- Pedestrian Delay;
- Pedestrian and Cyclist Amenity;
- Fear and Intimidation;

- Accidents and Road Safety;
- Hazardous Loads.”

Is The IEMA the only baseline methodology for assessing these impacts? An increase in certain traffic levels may not create a linear impact on some of the affects listed above. There also needs to be some assessment which is not purely quantitative and linear, but has a qualitative and local knowledge inputs. The methodology seems very unrepresentative of the reality that would be experienced if the impact was deemed medium for example.

7.5.56. P148 Hazardous or Dangerous Loads. This is scoped out of the assessment. There are hazards along all 3 routes of different descriptions. There is high potential for collision with other vehicles with articulated transport in particular due to narrow or windy roads, hills – already known accident hotspots. Given the sensitive nature of some of the loads – toxic substance contained within the solar panels, batteries etc, it seems very unwise to scope this out of the EIA..

7.5.59. P149 “it is considered that the significance of the environmental effects of the operational phase of the Proposed Development would be negligible with respect to access and highways and therefore a detailed assessment of the operational phase of the Proposed Development is proposed to be scoped out of the EIA.”

Given it is not clear what kind of management activities will take place, can it be clarified what has been used as a worst case scenario to underpin the vehicle movements and scope this out?

7.6. P151 Noise and Vibration. Baseline conditions. The list is not complete, it should include the following: 1 Grange Farm Cottage, 2 Grange Farm Cottage; Grange Farm; West Barn Cottage, Lodge Cottage, Braceborough Lodge Farm

7.6.10. P153. The NPPF also notes that tranquil areas which have remained relatively undisturbed by noise and which are prized for their recreational and amenity value should be identified and protected.

7.6.22 Desk and field study. Appendix 7.4 only highlights the locations, yet the data is only going to be provided at the ES. Given how critical this is to residents, they would want to see something in the PEIR for the public consultation in the spring. The whole PV site plan could change depending on the buffer they allow for nearby properties which could be impacted by these results. The test frequency appears very limited in 7.6.23, will it provide a representative baseline? Will any allowance be made for the impact of wind direction and to extend the 250m boundary and factor it into the noise level range (high wind, low wind etc)

7.6.31. P158. “Some construction activities, such as piling operations, drilling or vibratory rolling techniques, can generate vibration levels in close proximity to their use (less than 50m typically)”.

If proximity to any residential areas is less than 50m, there should be an assessment of the wider impacts on those properties ie. not just noise, dust etc, but importantly if older properties have no foundations what could be the impact of those vibrations. Clarity upfront on residential buffers/margins to proximity of solar PV could resolve many questions/concerns.

7.6.36. P160. “Primary mitigation will first involve adjusting the design of the Proposed Development to maximise (where possible) the distance from areas including noise-generating plant from noise-sensitive receptors. The detailed design of the Proposed Development, including final plant locations and selections, can be controlled through a requirement of the DCO that would establish suitable noise limits at the boundary of the Site”.

Would it not be more helpful if Mallard Pass at the earlier stages set their noise limits and adjusted their plan accordingly, rather than it being a requirement of the DCO? They could share their mitigation measures earlier in the process.

7.6.37 P “Noise impacts from construction traffic is therefore scoped out of the EIA”.

This assumes the baseline for vehicle movements is correct which we don’t believe it is – ref 6.6.37.

## Water Resources and Ground Conditions 7.7

7.7.2. “A desk-based survey was undertaken in December 2021 to understand the baseline conditions for water resources and ground conditions at the Site.” Whilst desk-based work is always a starting point, there seems to be no further assessment based on local knowledge and other available information. The report has been produced by Argyll Environmental in Brighton and contains a vast amount of data, site diagrams, flood risk areas, wildlife info, etc, gathered from the EA, Natural England, and other sources, but Argyll themselves point out this report on its own is not sufficient.

7.7.5. P162. “An initial baseline study shows that elements of the Proposed Development north of Essendine village and south of Wood Farm lie within groundwater Source Protection Zones (SPZ) 1 and 2 and outwith of the River Welland catchment Surface Water Safeguard Zone”.

Given this information it will be critical to avoid any water contamination from damaged solar panels and/or on-site battery storage faults (Fires) and mitigation needs to be clearly identified.

7.7.6 P162. This has “ 'high' Impact Risk Zone associated with the SSSI at Ryhall Pasture and Little Warren Verges”. As above there needs to be clear mitigation or re-design to avoid any contamination issues.

7.7.12. P164. “A Site walkover will be undertaken to verify the location and nature of watercourses and waterbodies within the study area likely to be affected by the Proposed Development. The Site walkover will augment the desk study.”

Depending on when the site walkover is done will significantly impact the conclusions reached. 2021/22 has been very dry. To supplement the desk and walkover studies, every parish council and flood warden where applicable should also be contacted to build the knowledge base.

7.7.13. P164. “Infiltration testing will be conducted at the Site in early 2022. The infiltration testing will comprise of test pits which will be utilised for testing to Building Research Establishment (BRE) 365 (2016) standard in order to confirm the permeability of the underlying soils and suitability for infiltration drainage.”

Is this the right testing approach?

7.7.19. P166. “Draft NPS EN-3 (BEIS, 2021) outlines the requirements for an FRA and the promotion of the use of sustainable drainage systems (SuDS).”

Mallard Pass have not detailed the use of SuDs so far, just acknowledged there are flood risk areas and will raise the height of solar panels. This does not take into account the impact of water run-off outside of the site.

7.7.21. P168. “The baseline data will be used to assess the potential effects of the Proposed Development on hydrological and hydrogeological resources within a 5km study area. This study area is based on the hydrological and hydrogeological connectivity of water bodies located downstream of the Proposed Development.”

MP need to show flood maps taking into account the 5km study area, currently Greatford is just off their map. Please note the Water Resources Sensitivity table in Appendix 7.6 – this applies to Greatford Cut (a flood plain) and is high.

7.7.28. P169 “As sections of the Site are located within Flood Zone 3a, the FRA will need to demonstrate that the Proposed Development passes the Exception and Sequential tests outlined in the NPS and NPPF. There will be a requirement to raise all electronically sensitive equipment at least 600mm above the highest modelled flood level for the 1 in 100-year (+climate change) event, or have a commitment to install flood resilient measures onsite infrastructure.”

As above point 7.7.19 if panels need to be raised, what criteria will they use to assess the use of SuDs?

7.7.29. P169. “The FRA will be produced and will focus on the following elements:  Assessment of the introduction of new hard-standing areas on the greenfield run-off rates, using Micro Drainage software.”

This needs to take into account all the new access tracks and hard-standing bases for all the battery storage on the solar PV site.

#### 7.7.31 P170

“Construction effects” – no mention of impact of compaction of the soil, temporary access tracks etc on water run-off. “Operational Effects □ Increase in surface water run-off from areas of hard-standing;” - there is no mention of the impact of run-off from the solar panels themselves. Normally rain is dispersed evenly across the ground, when it falls on solar panels up to 3.5m high, there will be a huge concentration of water run-off at the bottom of the panels, leading to water channels being created, and speeding up the flow of water if the ground is unable to absorb it. These effects need to be taken account of.

7.7.39. P172. Issues to be scoped out. “Potential transfer of chemicals to surface water resources during operation”. Given the possibility of contamination from damaged panels or chemical leak from battery fire on the solar PV site, is it wise for this to be scoped out?

#### **Agricultural Land Use**

**This is a key determining factor in the decision making process with the Planning Inspectorate, so ensuring this is scoped, correctly surveyed and assessed, is critical to the outcome of the application.**

7.8.5. P173 “In order to inform the assessment an Agricultural Land Classification survey will be undertaken at the Site. Given the size of the Site the survey will be carried out at a semi-detailed scale. This will involve in the order of 210 auger locations on a regular 200 metre grid across the solar PV Site.”

What is the baseline methodology for determining 210 locations (looks too low), and what guidelines are they using to conduct these surveys?

According to the British Society of Soil Science (BSSS) Proficiency in ALC Survey Grading of land using the ALC system is not straightforward. For individual development sites this normally involves a detailed ALC field survey, according to the MAFF 1988 ALC guidelines. Proficiency in the conduct of an ALC survey requires knowledge and experience of field soil survey and the interpretation of soil, topography and climate data. There are comparatively few experts capable of carrying out ALC to a sufficient professional standard. For this reason, BSSS has published a professional competency document<sup>4</sup> that outlines the qualification, knowledge, skills and experience required to carry out ALC.

7.8.17. P176 “In terms of magnitude of impacts, the loss of more than 50ha of BMV land is considered to be a large/major magnitude, losses of 20-50ha are of moderate/medium magnitude and losses of less than 20ha to be of low magnitude. These thresholds are based on established practice. The 20ha threshold is the trigger point for consultation with Natural England on losses of BMV agricultural land.

Based on an approximate solar PV area of 530Ha minimum, should Natural England be involved now as more than 20Ha (3.7%) is likely to be BMV land. Also more than 50Ha (10% of the land could be BMV ) which is deemed large/major magnitude. Given these statistics it is even more important that the survey work is full, thorough, qualified and wholly independent.

7.8.18. P176. Potential Effects. “The Proposed Development has the potential to affect the agricultural land quality and use of the solar PV Site. The construction process is generally considered unlikely to significantly affect the agricultural land quality or the soil resource”.

This is not the belief of local specialists who see there will be damage to the soil through compaction and drilling, putting down access tracks during the construction period. The view is the soil will not carry the nutrients necessary to return to agricultural production after 40 years. This of course will be hugely affected with how the soil is managed over the 40 year period.

## Climate Change

7.10.10. P186. “The effect of the Proposed Development on climate change will be assessed by evaluation of two quantities. Firstly, the potential emissions associated with the construction and operation of the Proposed Development. This will include the construction process and the manufacture and transportation of the components of the Proposed Development, and the carbon dioxide emissions embodied within them.”

This assessment does not include the carbon cost of importing more of our food as a result of the loss of agricultural land production in the UK. It also does not take account of the carbon costs of replacing and recycling panels when they are no longer efficient/redundant – it is known they will not last 40 years.

## Socio-economic

7.1..20/21 Assessment of effects. It only mentions on the negative side the loss of agricultural workers, there is also the lost income to all the other businesses in the supply chain associated with agricultural farming. This impact will continue during the operational phase. This needs to be factored in.

7.11.25 P195 “it is considered that the effect on the local tourism economy will not be significant and it is therefore proposed that this is scoped out of the EIA.” The distances to Stamford and Burghley are closer than 2.3km, as outlined earlier in the report. If you start to change the character and feel for an area it could have a negative impact particularly for Stamford.

7.11.26 P195 “Significant impacts on PROW users are therefore not anticipated and are scoped out of the EIA. A Recreation and Amenity assessment will be undertaken and submitted in support of the DCO Application” This is too late in the process and needs to be kept in scope. How has Mallard Pass come to this conclusion? The impacts on walkers, cyclists and horse-riders will be significant, with the potential for mental health impacts for those with fewer alternatives. Traversing these PROW with panels and security fencing all around is akin to walking through an industrial plant, removing any sense of enjoyment or well-being. For horses it could prove dangerous, as the tunnel effect on the bridleway will prove very scary, unlike the norm of greenfield land. This absolutely needs to be scoped in to address the strength of public opinion. There is no assessment to show the benefits for the community – whether supporting their local economy or improving the social benefits.

## 8.0 Environmental Topics Scoped Out of the EIA

### Heritage

8.1.13: “Furthermore, mitigation through design (avoidance) can allow any especially sensitive buried archaeological remains (such as human remains) to be safeguarded completely from any disturbance. The desk based assessment and geophysical surveys will aid in the identification of any such locations. Thus, an assessment of buried archaeological remains can be scoped out of the EIA.”

Given a geophysical survey of the site has been completed, it is asserted that any assessment of buried archaeological remains **cannot** be scoped out of the EIA until such time as the results of the geophysical survey are in the public domain and aspects requiring “mitigation through design” are adequately pinpointed. Given the roman remains findings in field 36, can the geophysical surveys confirm there are no further roman remains at risk from drilling/piling. (Ref.3.1.12).

### Air Quality

8.25 P209 “it is considered likely that no exceedances of the annual mean objective will be experienced in the vicinity the Site.” Given Essendine is at the epi-centre for all 3 routes, has this been taken into account?

8.28/29 P211 “it is not expected that a specific air quality chapter will be required in the ES.”. Surely a sensitivity analysis should be done to determine if the forecast traffic movements are wrong and considerably higher, will any of the assessment thresholds be breached? This should be explored before taking out of scope.

## **Risk of Major Accidents or Disasters.**

8.4.2. P215 “The EIA Regulations do not include the definition of major accidents and/or disasters. For the purposes of the assessment, the following three definitions and accidents and disasters have been used within the context of the Proposed Development:

1. The Control of Major Accidents Hazard (COMAH) Regulations, 2015, defines a major accident as “an occurrence such as a major emission, fire, or explosion resulting from uncontrolled development, leading to serious danger to human health or the environment (whether immediate or delayed) inside or outside the establishment, an involving one or more dangerous substances”.
2. The International Federation of Red Cross & Red Crescent Societies Disaster and Crises Management Guidance provides a useful definition for disaster, which is “a sudden calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community’s or society’s ability to cope using its own resources. Though often caused by nature, disasters can have human origins.”; and 7863\_EIA\_0001 Mallard Pass EIA Scoping Report
3. The Oxford English Dictionary defines an accident as “an unfortunate incident that happens unexpectedly and unintentionally, typically resulting in damage or injury.”

Are these the right and appropriate definitions – “an unfortunate incident” is not how a battery storage fire and explosion will be perceived if it happens?

8.4.10. P217 “Component and equipment of the Proposed Development will be installed in accordance with the relevant Fire regulations and guidance from the Health and Safety Executive. The operational phase of the Proposed Development would involve routine maintenance and servicing of equipment to ensure the safe operation of equipment. Fire equipment and notices will also be provided onsite for the availability of personnel and would be regularly inspected and serviced in accordance with relevant Fire Regulations. The ES will include details on the measures incorporated into the design to minimise any potential impact of Proposed Development resulting from a fire. As such, a separate ES chapter covering risk from fire accidents is not considered necessary.”

The scale of this battery storage will be unprecedented in the UK and upfront design is critical to ensure the safety for the local communities is the highest priority.

8.4.11. P218 “An outline Battery Safety Management Plan (oBSMP) will be prepared and submitted with the DCO Application. The oBSMP will detail the regulatory guidance reviewed to ensure that all safety concerns around the BESS element of the Proposed Development are addressed in so far as is **reasonably practicable.**” – would that kind of comment be allowed with a nuclear power station?

This is one of the biggest concerns for residents given the evidence of fire safety events with lithium-ion batteries all over the world. The amount of time allocated in this report is negligible. It shows no understanding or respect to the impacts of such an adverse event. The lethal toxic gases, the uncontrollable fires, the environmental damage require more than just a plan, they require thorough design, and full assessment throughout the planning process and need to be scoped in.

## **Human Health**

8.5.5 P220. Will Mallard Pass clarify there are no cable routes in close proximity to PRoW?

8.5.6. P220 “Due to interactions with human health covered elsewhere within individual topics of the ES, it is not considered necessary to provide a separate Human Health ES chapter.”




There does not seem to be any recognition or assessment of mental health impacts, just physical health. Therefore should health have been removed totally from the scope?

**Conclusion**




Table 10.1 on P230 highlights the extent of areas scoped out of the EIA. Given the unprecedented scale of this project, and the lack of full information and understanding at this early stage in the process, we would ask for a cautious approach to be exercised and for areas highlighted in this report to be recommended to be put back into scope.




28.2.22

## Mallard Pass Solar Farm proposed viewpoints

Viewpoint	Mallard Pass proposed viewpoint	Revised suggestions by MPAG
1	<p>This viewpoint shows small area of field 29 beyond large mitigation area, set back from the road, so only partially visible. <b>Not the best viewpoint for a montage, should be re-allocated to another area.</b></p>	<p>Turn left of A6121 to Greatford, just down on RHS. Views of 29,30,33, 34,36. <b>Better montage option.</b></p> 
2	<p>This is along the A6121. There is a mitigation area in front of this, and the solar panels will be on a far higher piece of ground. Not clear how far set back the panels will be in field 29 that adjoins field 28. <b>Not the best viewpoint for a montage, should be re-allocated to another area.</b></p>	
3	<p>This viewpoint is in a low lying area out the back of Carlby, the panels heading west are on the other side of the elevated railway line. This viewpoint is irrelevant and should be removed. <b>It should not be part of the montage selection.</b></p>	<p>Recommend replacing it at the top of the footpath just outside Essendine, looking east over at fields 28,29,30,33</p> 
4	<p>This point is next to the bridleway and is an obvious choice. However the viewpoint opposite, still on the same bridleway, is stronger.</p>	<p>Just down the same bridleway a few hundred yards under the power lines. <b>This is a 360 panoramic and should be the montage view</b></p> 
5	<p>This looks out onto an area of mitigation on to field 39 where there will be no panels and it is not next to a footpath.</p>	<p>Recommend moving this further up the road towards Carlby and positioned next to the footpath sign outside Grange Farm that would provide a relevant viewpoint of the panels across field 36.</p>



		
6	<p>This is on the wrong side of the railway line with no solar PV fields visible.</p>	<p>The north side of the railway, 20 yards along the bridleway adjacent to field 35 provides long distance views of the PV panels.(This pic is a few yards too early as in a dip)</p> 
7	<p>This is on a footpath which leaves green lane just after it starts on Newstead Lane. The point chosen is only just into the field and the current scrub land at the field edge is so high it blocks the view across to Wood Farm. The panels are to be located on this field.</p>	<p>These 2 viewpoints on this path are far more representative of the views.</p> 
8	<p>This point shows clearly the impact of the solar panels when looking across the fields as you pass gateways. Panels will be visible all along the road from Uffington to Essendine though the hedge varies in thickness and height and will afford some screening along parts of the road particularly in summer when in full leaf. This viewpoint is OK.</p>	
9	<p>This viewpoint is restricted with hedgerow which is a feature down Uffington road. I</p>	

	suggest the viewpoint is taken in an open gateway.	
10	This viewing point is on a footpath which leaves the village of Belmesthorpe off Castle Rise. There is no visibility of the proposed solar farm which is up an incline and on the other side of a fully hedged bridleway. There is no logic for it to be included. <b>This should not be a montage view.</b>	No available alternative.
11	This viewpoint is fine.	
12	This view point is located on the B1176 at the point a footpath joins the road between fields 9 and 12. The view point will show clearly the visual impact of the arrays when looking across the fields to Essendine, so relevant for walkers and horseriders. However it is a low point on the road and does not necessarily give a true perspective of the panels from the higher points of the road when travelling from Ryhall to Little Bytham by vehicle. <b>Could be a montage option.</b> <b>Also suggest the following points opposite.</b>	Also suggest these viewpoints at the Drift junction looking east to Essendine across field 9, and NW in field 2. 
13	The hedge is high and dense and so the fields where arrays will be mounted is not very visible at the particular point shown on the byway. It misrepresents the open coppices that flag both sides of the drift and the clear visibility field users will have where the arrays will be mounted. This by-way is very well used by walkers, horse riders, cyclists and a variety of other road users.	Alternative suggestions still adjacent to field 13. <b>Good montage point</b> 
14	This is located at Barbers Hill at the most northerly point of the scheme. However the location is on a high, flat & straight piece of road which completely misrepresents the true topography of the area – the south facing slope of the field is not evident and the view point does not give a true indication of the visual impact the scheme will have – this is clearly evident just a 100yds or so further south along the B1176 – see opposite	V slightly further south on B1176 looking down the hill and across towards Essendine. <b>A good montage option.</b> 

More suggestions opposite:

Just south of the crossroads B1176 heading to Ryhall looking east across fields 5&6 & beyond.



///premature.wider.tentacles

Heading north on B1176 to Careby looking across field 4



///flood.workshops.bead

B1176 crossroads looking across to Essendine to fields 5,6,7,8, 10,11



///wells.hack.confused

Heading west out of Carlby over the B1176 crossroad on RHS looking west into field 4.

**Land Rights and Acquisitions**

Anne Holdsworth  
DCO Liaison Officer  
UK Land and Property



[www.nationalgrid.com](http://www.nationalgrid.com)

SUBMITTED ELECTRONICALLY:  
[MallardPassSolar@planninginspectorate.gov.uk](mailto:MallardPassSolar@planninginspectorate.gov.uk)

28 February 2022

Dear Sir/Madam

**APPLICATION BY MALLARD PASS SOLAR FARM LIMITED FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE MALLARD PASS SOLAR PROJECT SCOPING CONSULTATION RESPONSE**

I refer to your letter dated 7<sup>th</sup> February 2022 in relation to the above proposed application. This is a response on behalf of National Grid Electricity Transmission PLC (NGET) and National Grid Gas PLC (NGG).

Having reviewed the consultation report, I would like to make the following comments regarding National Grid infrastructure within or in close proximity to the current red line boundary:

**Electricity Transmission Infrastructure**

NGET has a high voltage electricity overhead transmission line, substations and underground cables within or in close proximity to the scoping area. The overhead line, substations and cables form an essential part of the electricity transmission network in England and Wales.

Overhead Lines

- 4VK 400kV Cottam-Eaton Socon-Wymondley 2

Substations

- Ryhall 400kV substation
- Essendine 25kV substation

Other Apparatus

- Essendine to Ryhall Cable Circuits.
- Associated fibre cables.

## Gas Transmission Infrastructure:

NGG has high pressure gas transmission pipelines located within or in close proximity to the scoping area. The transmission pipelines form an essential part of the gas transmission network in England, Wales and Scotland:

### Gas Mains:

- Feeder 9      Kirkby Underwood to Tallington
- Feeder 22     Aslackby to Braceborough

I enclose plans showing the location of National Grid's:

- overhead lines;
- substations;
- underground cables; and
- gas pipelines.

## Specific Comments

### Electricity Infrastructure:

- National Grid's Overhead Line/s is protected by a Deed of Easement/Wayleave Agreement which provides full right of access to retain, maintain, repair and inspect our asset
- Statutory electrical safety clearances must be maintained at all times. Any proposed buildings must not be closer than 5.3m to the lowest conductor. National Grid recommends that no permanent structures are built directly beneath overhead lines. These distances are set out in EN 43 – 8 Technical Specification for “overhead line clearances Issue 3 (2004)
- If any changes in ground levels are proposed either beneath or in close proximity to our existing overhead lines then this would serve to reduce the safety clearances for such overhead lines. Safe clearances for existing overhead lines must be maintained in all circumstances.
- The relevant guidance in relation to working safely near to existing overhead lines is contained within the Health and Safety Executive's ([www.hse.gov.uk](http://www.hse.gov.uk)) Guidance Note GS 6 “Avoidance of Danger from Overhead Electric Lines” and all relevant site staff should make sure that they are both aware of and understand this guidance.
- Plant, machinery, equipment, buildings or scaffolding should not encroach within 5.3 metres of any of our high voltage conductors when those conductors are under their worse conditions of maximum “sag” and “swing” and overhead line profile (maximum “sag” and “swing”) drawings should be obtained using the contact details above.
- If a landscaping scheme is proposed as part of the proposal, we request that only slow and low growing species of trees and shrubs are planted beneath and adjacent to the existing overhead line to reduce the risk of growth to a height which compromises statutory safety clearances.

- Drilling or excavation works should not be undertaken if they have the potential to disturb or adversely affect the foundations or “pillars of support” of any existing tower. These foundations always extend beyond the base area of the existing tower and foundation (“pillar of support”) drawings can be obtained using the contact details above.
- National Grid Electricity Transmission high voltage underground cables are protected by a Deed of Grant; Easement; Wayleave Agreement or the provisions of the New Roads and Street Works Act. These provisions provide National Grid full right of access to retain, maintain, repair and inspect our assets. Hence we require that no permanent / temporary structures are to be built over our cables or within the easement strip. Any such proposals should be discussed and agreed with National Grid prior to any works taking place.
- Ground levels above our cables must not be altered in any way. Any alterations to the depth of our cables will subsequently alter the rating of the circuit and can compromise the reliability, efficiency and safety of our electricity network and requires consultation with National Grid prior to any such changes in both level and construction being implemented.

## Gas Infrastructure

The following points should be taken into consideration:

- National Grid has a Deed of Grant of Easement for each pipeline, which prevents the erection of permanent / temporary buildings, or structures, change to existing ground levels, storage of materials etc.

Pipeline Crossings:

- Where existing roads cannot be used, construction traffic should ONLY cross the pipeline at previously agreed locations.
- The pipeline shall be protected, at the crossing points, by temporary rafts constructed at ground level. The third party shall review ground conditions, vehicle types and crossing frequencies to determine the type and construction of the raft required.
- The type of raft shall be agreed with National Grid prior to installation.
- No protective measures including the installation of concrete slab protection shall be installed over or near to the National Grid pipeline without the prior permission of National Grid.
- National Grid will need to agree the material, the dimensions and method of installation of the proposed protective measure.
- The method of installation shall be confirmed through the submission of a formal written method statement from the contractor to National Grid.
- Please be aware that written permission is required before any works commence within the National Grid easement strip.

- A National Grid representative shall monitor any works within close proximity to the pipeline to comply with National Grid specification T/SP/SSW22.
- A Deed of Consent is required for any crossing of the easement.

#### Cable Crossings:

- Cables may cross the pipeline at perpendicular angle to the pipeline i.e. 90 degrees.
- A National Grid representative shall supervise any cable crossing of a pipeline.
- Clearance must be at least 600mm above or below the pipeline.
- Impact protection slab should be laid between the cable and pipeline if cable crossing is above the pipeline.
- A Deed of Consent is required for any cable crossing the easement.
- Where a new service is to cross over the pipeline a clearance distance of 0.6 metres between the crown of the pipeline and underside of the service should be maintained. If this cannot be achieved the service shall cross below the pipeline with a clearance distance of 0.6 metres.

#### General Notes on Pipeline Safety:

- You should be aware of the Health and Safety Executives guidance document HS(G) 47 "Avoiding Danger from Underground Services", and National Grid's specification for Safe Working in the Vicinity of National Grid High Pressure gas pipelines and associated installations - requirements for third parties T/SP/SSW22.
- National Grid will also need to ensure that our pipelines access is maintained during and after construction.
- Our pipelines are normally buried to a depth cover of 1.1 metres however; actual depth and position must be confirmed on site by trial hole investigation under the supervision of a National Grid representative. Ground cover above our pipelines should not be reduced or increased.
- If any excavations are planned within 3 metres of National Grid High Pressure Pipeline or, within 10 metres of an AGI (Above Ground Installation), or if any embankment or dredging works are proposed then the actual position and depth of the pipeline must be established on site in the presence of a National Grid representative. A safe working method agreed prior to any work taking place in order to minimise the risk of damage and ensure the final depth of cover does not affect the integrity of the pipeline.
- Excavation works may take place unsupervised no closer than 3 metres from the pipeline once the actual depth and position has been confirmed on site under the supervision of a National Grid representative. Similarly, excavation with hand held power tools is not permitted within 1.5 metres from our apparatus and the work is undertaken with NG supervision and guidance.



To view the SSW22 Document, please use the link below:

<https://www.nationalgrid.com/uk/gas-transmission/land-and-assets/working-near-our-assets>

To download a copy of the HSE Guidance HS(G)47, please use the following link:

<http://www.hse.gov.uk/pubns/books/hsg47.htm>

### **Further Advice**

**We would request that the potential impact of the proposed scheme on National Grid's existing assets as set out above and including any proposed diversions is considered in any subsequent reports, including in the Environmental Statement, and as part of any subsequent application.**

**Where any diversion of apparatus may be required to facilitate a scheme, National Grid is unable to give any certainty with the regard to diversions until such time as adequate conceptual design studies have been undertaken by National Grid. Further information relating to this can be obtained by contacting the email address below.**

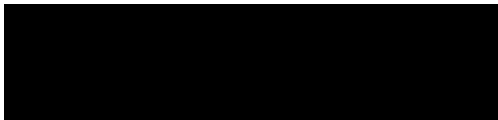
**Where the promoter intends to acquire land, extinguish rights, or interfere with any of National Grid apparatus, protective provisions will be required in a form acceptable to it to be included within the DCO.**

National Grid requests to be consulted at the earliest stages to ensure that the most appropriate protective provisions are included within the DCO application to safeguard the integrity of our apparatus and to remove the requirement for objection. All consultations should be sent to the following email address: [box.landandacquisitions@nationalgrid.com](mailto:box.landandacquisitions@nationalgrid.com)

I hope the above is useful. If you require any further information please do not hesitate to contact me.

The information in this letter is provided notwithstanding any discussions taking place in relation to connections with electricity or gas customer services.

Yours faithfully



**Anne Holdsworth  
DCO Liaison Officer, Land Rights and Acquisitions**

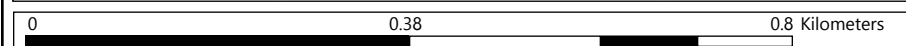




**Legend:**

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- Circuits
  - Commissioned
  - Decommissioned Group
  - Planned and Spares
- ⚡ OHL 400kV Commissioned
- ⚡ OHL 275kV Commissioned
- ⚡ OHL 132kV & Below Commissioned
- 🏗 Towers Commissioned
- 📶 Buried Cable Commissioned
- 📶 Fibre Cable Commissioned
- 📶 Pilot Cable
- 📶 Oil Pipe
- 📶 Cooling Pipe
- 🏠 Cooling Station
- 🏠 RAMM
- 🏠 Cable Tunnel
- 🏠 Gas Operational Boundary
- 🏠 Gas Site Boundary
- 🔍 Trial Hole
- 📶 Vantage Point
- 📶 Aerial Marker Post
- 📶 Pipe Crossing Point
- 📶 CP Test Post
- 📶 Transformer Rectifier
- 📶 Pipeline Crossing Sleeve
- 📶 Nitrogen Sleeve
- 📶 Other Sleeves
- 📶 Pipe Line Control Point
- 📶 Named Pipeline Section
- 📶 River Crossings

**Notes:**  
Mallard Pass Solar Farm NG Plan 1



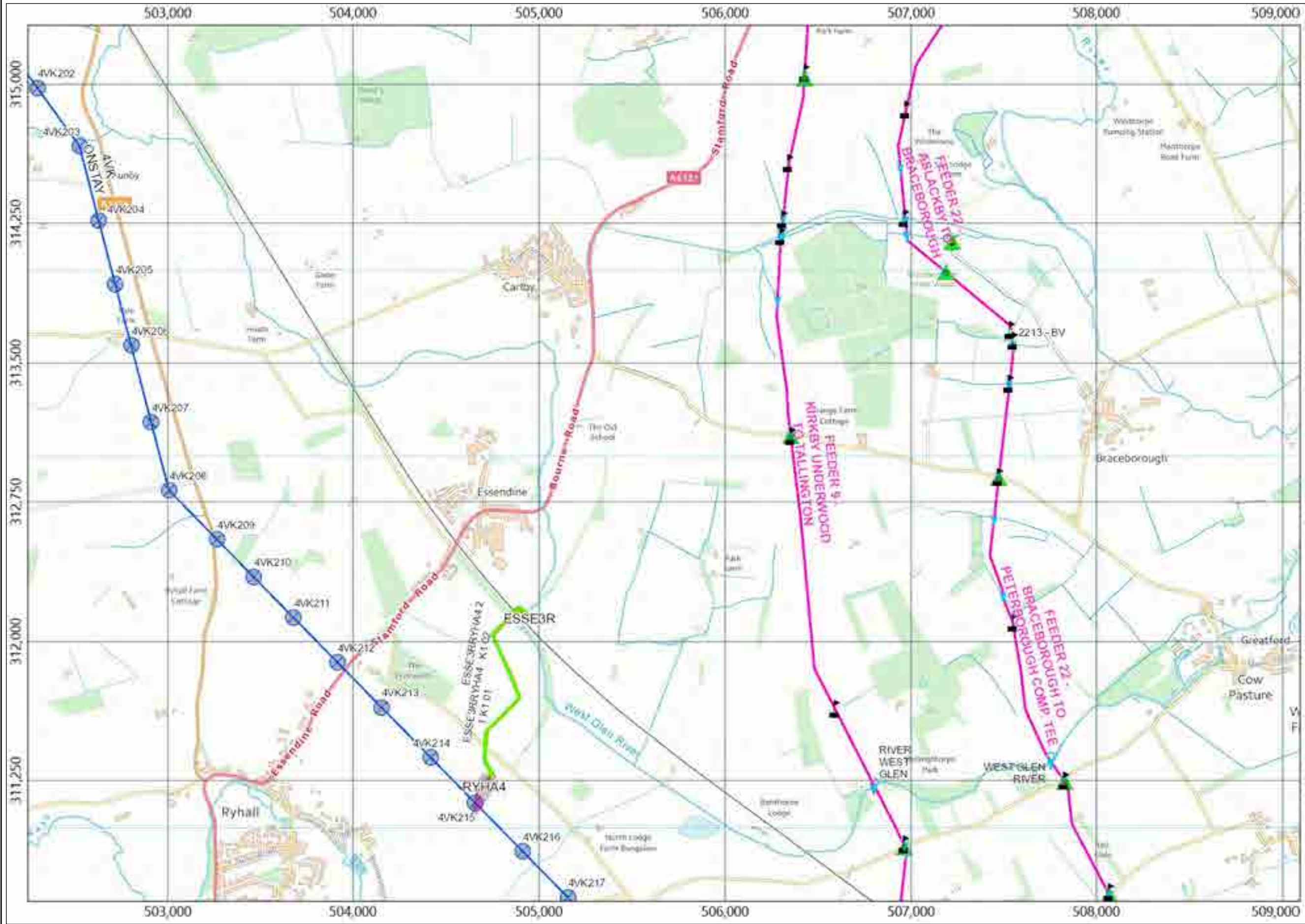
OS Disclaimer Background Mapping information has been reproduced from the Ordnance Survey map by permission of Ordnance Survey on behalf of The controller of Her Majesty's Stationery Office. ©Crown Copyright Ordnance Survey National Grid UK Ltd -0100059731

Date: 30/11/2021  
Time: 14:51:26  
Page size: A3 Landscape  
Scale: 1: 15,000  
Print by: Holdsworth, Anne



NG Disclaimer National Grid UK Transmission. The asset position information represented on this map is the intellectual property of National Grid PLC (Warwick Technology Park, Warwick, CV346DA) and should not be used without prior authority of National Grid.  
Note Any sketches on the map are approximate and not captured to any particular level of precision.





**Legend:**

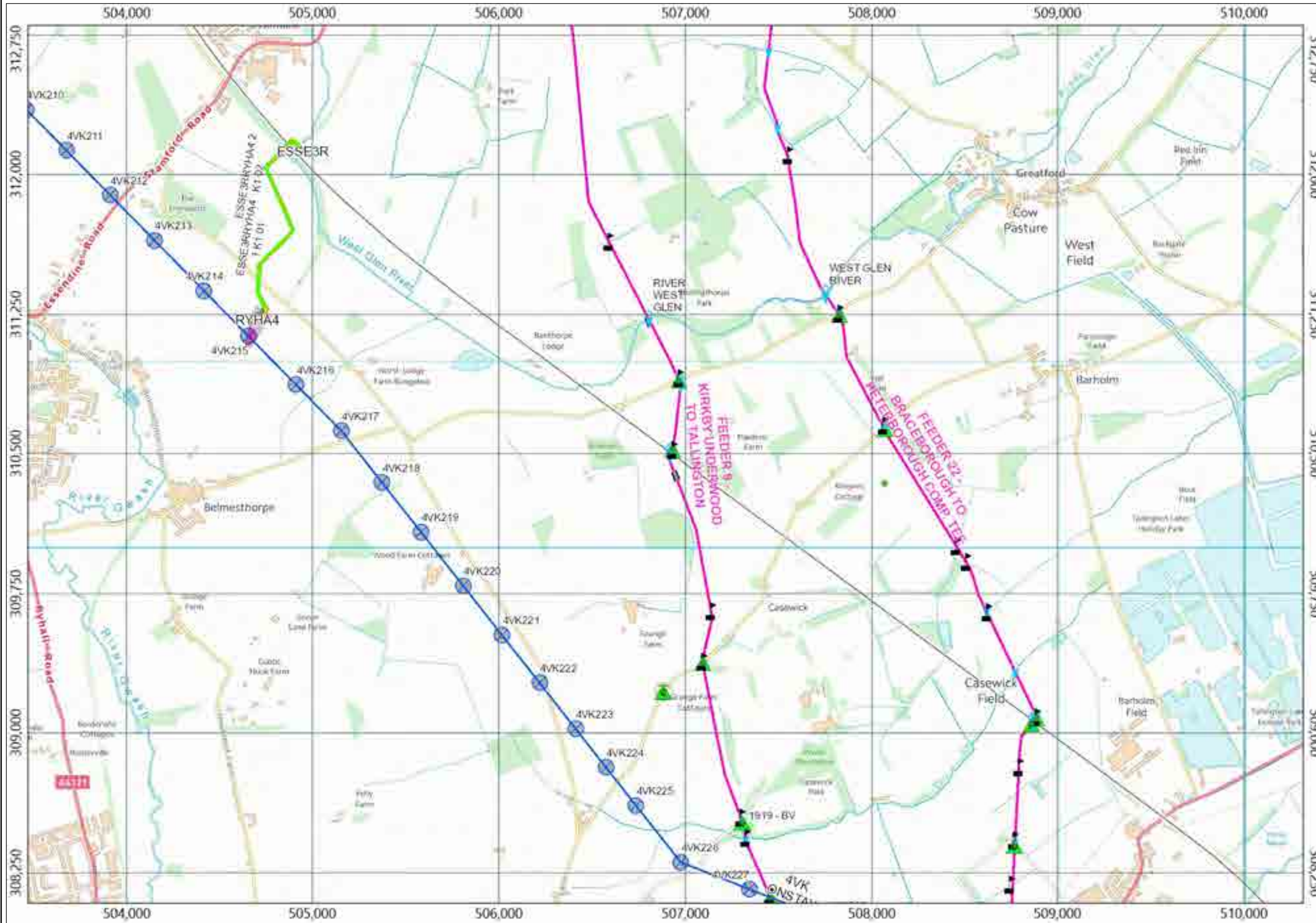
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- Circuits
- Commissioned
- Decommissioned Group
- Planned and Spares
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- ↑ OHL 275kV Commissioned
- ↑ OHL 132kV & Below Commissioned
- Towers Commissioned
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- Transformer Rectifier
- Pipeline Crossing Sleeve
- Nitrogen Sleeve
- Other Sleeves
- Pipe Line Control Point
- Named Pipeline Section
- River Crossings

**Notes:**

Mallard Pass Solar Farm NG Plan 2







**Legend:**

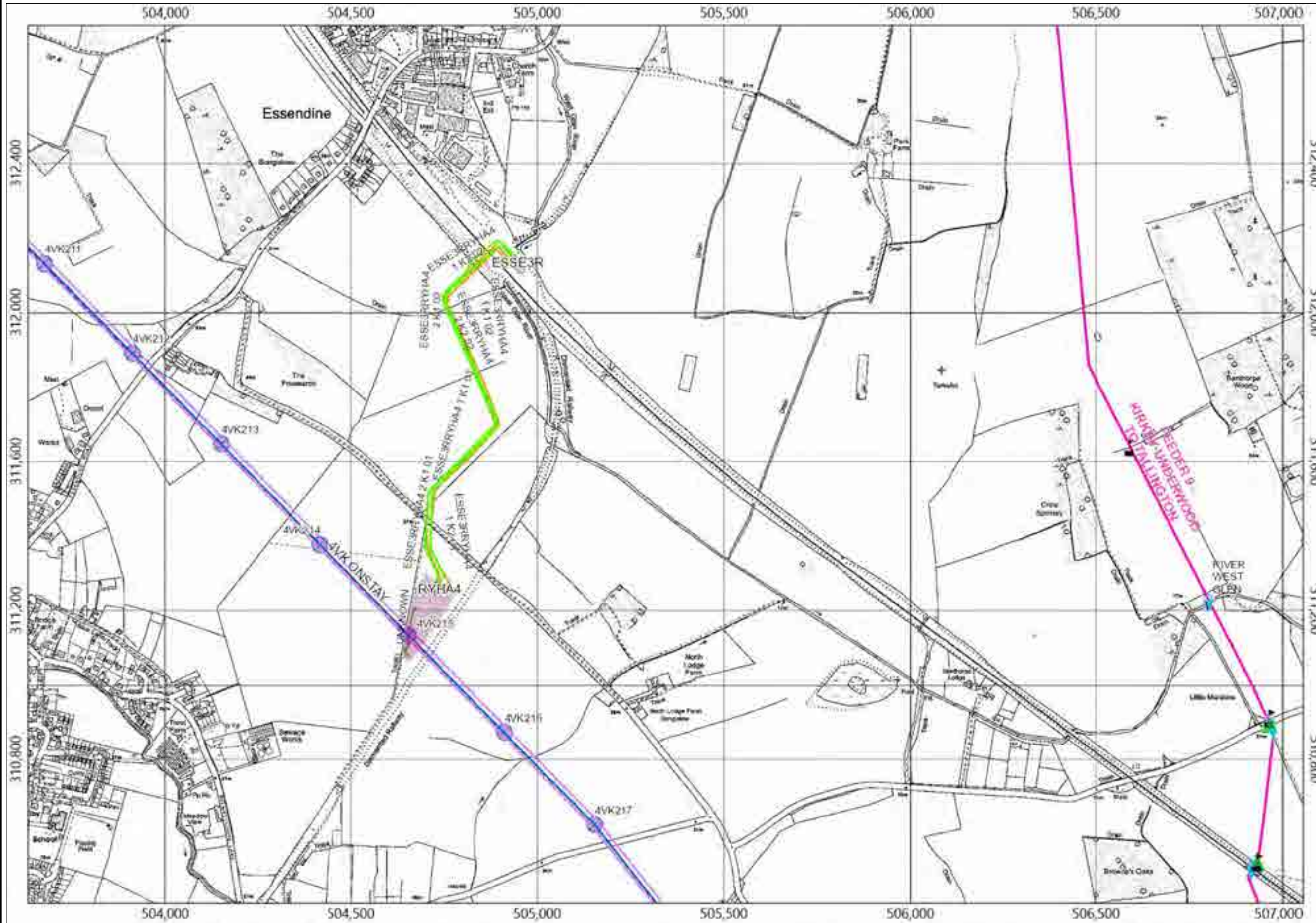
- Substations Commissioned
- Circuits
  - Commissioned
  - Decommissioned Group
  - Planned and Spares
- ⚡ OHL 400kV Commissioned
- ⚡ OHL 275kV Commissioned
- ⚡ OHL 132kV & Below Commissioned
- 🏗 Towers Commissioned
- 📶 Buried Cable Commissioned
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- 📶 Nitrogen Sleeve
- 📶 Other Sleeves
- 📶 Pipe Line Control Point
- 📶 Named Pipeline Section
- 📶 River Crossings

**Notes:**

Mallard Pass Solar Farm NG Plan 3







**Legend:**

- Substations Commissioned
- Circuits
  - Commissioned
  - Decommissioned Group
  - Planned and Spares
- ↑ OHL 400kV Commissioned
- ↑ OHL 275kV Commissioned
- ↑ OHL 132kV & Below Commissioned
- Towers Commissioned
- Buried Cable Commissioned
- Fibre Cable Commissioned
- Pilot Cable
- Pillar
- Oil Tank
- Link Box
- Gauge
- Joint Bay
- Cable Joint
- Oil Pipe
- Cooling Pipe
- Cooling Station
- RAMM
- Cable Tunnel
- Gas Operational Boundary
- Gas Site Boundary
- Trial Hole
- Vantage Point
- Aerial Marker Post
- Pipe Crossing Point
- CP Test Post
- Transformer Rectifier
- Pipeline Crossing Sleeve
- Nitrogen Sleeve
- Other Sleeves
- Pipe Line Control Point
- Named Pipeline Section
- River Crossings

**Notes:**  
Mallard Pass Solar Farm NG Plan 4



Our ref: 7299  
Your ref: EN010127

The Planning Inspectorate  
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Central Operations  
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Email:  
[MallardPassSolar@planninginspectorate.gov.uk](mailto:MallardPassSolar@planninginspectorate.gov.uk)

**Martin Seldon,**  
**Assistant Spatial Planner**  
National Highways  
The Cube  
199 Wharfside Street  
Birmingham  
B1 1RN

Tel: 0300 4703345

23 February 2022

Dear Sir/Madam,

**Regulations 10 and 11 - Mallard Pass Solar Farm Limited for an Order granting Development Consent for the Mallard Pass Solar Project.**

Thank you for consulting National Highways on 7 February 2022, in relation to Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11, for Application by Mallard Pass Solar Farm Limited (the Applicant) for an Order granting Development Consent for the Mallard Pass Solar Project (the Proposed Development).

We have reviewed the scoping report dated February 2022 and the associated appendix. Based on our review, we have the following comments. At this stage, it is noted that there is limited information around the impact of the construction and decommissioning impact on the A1. We agree that the impact on the A1 should be assessed, below we have provided general and specific comments to consider.

**General Comments**

- An assessment of transport related impacts of the proposal should be carried out and reported as described in the Department for Transport '*Guidance on Transport Assessment (GTA)*' and in accordance with Circular 02/2013.
- Environmental impact arising from any disruption during construction, traffic volume, composition or routing change and transport infrastructure modification should be fully assessed and reported.

## Specific Comments

We understand that existing DfT static counts and survey data have been used for Local Highway Roads and do not include the A1. If baselines were to be used or required at a later stage. It would be recommended that Webtris counts for the A1 are used, where possible. Additionally, it should be noted that due to the unknown impact of COVID-19, National Highways recommends that historical data is also used to understand current trends. This is to ensure that a robust assessment is conducted.

Additionally, we recommend that the AM (08:00-09:00) and PM (17:00-18:00) peak hour periods be assessed. It may also be advantageous to provide a breakdown of the impact over a 24 or 12-hour period, in order to assess the impact during other periods.

We would agree with the use of DfT TEMPro Growth Factors for future year assessments, but these will need to be in accordance with DfT Circular 02/2013 paragraph 25, which states *“The overall forecast demand should be compared to the ability of the existing network to accommodate traffic over a period up to ten years after the date of registration of a planning application or the end of the relevant Local Plan whichever is the greater. This is known as the review period.”*

We also recommend that the SRN assessment is agreed in a staged approach, that is the overall methodology and elements such as assessment years, trip generation, and distribution be agreed upon prior to further assessment work being carried out. This approach should avoid any abortive work.

These comments imply no pre-determined view as to the acceptability of the proposed development in traffic, environmental or highway terms.

Yours sincerely



Martin Seldon  
Assistant Spatial Planner



**From:** [NATS Safeguarding](#)  
**To:** [Mallard Pass Solar](#)  
**Subject:** RE: EN010127 - Mallard Pass Solar Project - EIA Scoping Notification and Consultation [SG32758]  
**Date:** 08 February 2022 11:06:59  
**Attachments:** [image002.png](#)  
[image004.png](#)  
[image005.png](#)  
[image006.png](#)  
[image007.png](#)  
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[image009.png](#)  
[image010.png](#)

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Our Ref: SG32758

Dear Sir/Madam

The proposed development has been examined from a technical safeguarding aspect and does not conflict with our safeguarding criteria. Accordingly, NATS (En Route) Public Limited Company ("NERL") has no safeguarding objection to the proposal.

However, please be aware that this response applies specifically to the above consultation and only reflects the position of NATS (that is responsible for the management of en route air traffic) based on the information supplied at the time of this application. This letter does not provide any indication of the position of any other party, whether they be an airport, airspace user or otherwise. It remains your responsibility to ensure that all the appropriate consultees are properly consulted.

If any changes are proposed to the information supplied to NATS in regard to this application which become the basis of a revised, amended or further application for approval, then as a statutory consultee NERL requires that it be further consulted on any such changes prior to any planning permission or any consent being granted.

Yours faithfully

**NATS**

NATS Safeguarding

E: [natssafeguarding@nats.co.uk](mailto:natssafeguarding@nats.co.uk)

4000 Parkway, Whiteley,  
Fareham, Hants PO15 7FL  
[www.nats.co.uk](http://www.nats.co.uk)





**From:** [REDACTED] on behalf of [Town Planning LNE](#)  
**To:** [Mallard Pass Solar](#)  
**Subject:** Ref EN010127 - scoping opinion, The Mallard Pass Solar Project  
**Date:** 07 March 2022 10:22:46  
**Attachments:** [image001.png](#)

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**FAO – Planning Inspectorate**

**Ref – EN010127**

**Proposal – Scoping Opinion for the Mallard Pass Solar Project**

**Location – The Mallard Pass Solar Project**

Thank you for your letter of 7 February 2022 providing Network Rail with an opportunity to comment on the abovementioned Scoping Opinion.

With reference to the protection of the railway, the Environmental Statement should consider any impact of the scheme upon the railway infrastructure and upon operational railway safety. In particular, it should include a Glint and Glare study assessing the impact of the scheme upon train drivers (including distraction from glare and potential for conflict with railway signals). It should also include a Transport Assessment to identify any HGV traffic/haulage routes that may utilise railway assets such as bridges and level crossings during the construction and operation of the site.

Please note that if the intention is to install cabling in support of the project through railway land, the developer will need an easement from Network Rail and we would recommend that they engage with us early in the planning of their scheme in order to discuss and agree this element of the proposals.

Kind regards



**Matt Leighton**  
Town Planning Technician  
**Diversity and Inclusion Champion**  
Network Rail Property - Eastern Region  
George Stephenson House, Toft Green, York, YO1 6JT



Katherine King  
The Planning Inspectorate  
Environmental Services  
Central Operations  
Temple Quay House  
2 The Square  
Bristol  
BS1 6PN

[www.newark-sherwooddc.gov.uk](http://www.newark-sherwooddc.gov.uk)

Telephone: 01636 650000  
Email: [planning@nsdc.info](mailto:planning@nsdc.info)

Our ref: 22/00260/NPA  
Your ref: EN010127

16 February 2022

Sent via e-mail to:

[mallardpassolar@planninginspectorate.gov.uk](mailto:mallardpassolar@planninginspectorate.gov.uk)

Dear Ms King,

**Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017(the EIA Regulations) – Regulations 10 and 11**

**Application by Mallard Pass Solar Farm Limited (the Applicant) for an Order granting Development Consent for the Mallard Pass Solar Project (the Proposed Development)**

**Scoping consultation and notification of the Applicant's contact details and duty to make available information to the Applicant if requested**

I refer to the above consultation received by this Authority on 08 February 2022 which relates to the proposed installation of a ground mounted solar photovoltaic (PV) electricity generation and storage facility on a site north of Stamford (which is partly in the neighbouring administrative boundary of South Kesteven District Council).

I can advise that Newark & Sherwood District Council have no comments to make on the Scoping Report (Dated February 2022).

Please note that this matter has not been formally reported to the District Council's Planning Committee. In these circumstances the comments are those of an Officer of the Council under delegated power arrangements.

If you require any further assistance please do not hesitate to contact my colleague, Helen Marriott, the case officer, who has dealt with this consultation, [REDACTED]

Yours sincerely

[REDACTED]  
Lisa Hughes - Business Manager – Planning Development

**From:** [REDACTED]  
**To:** [Mallard Pass Solar](#)  
**Cc:** [REDACTED]  
**Subject:** North East Lincolnshire - EN010127  
**Date:** 11 February 2022 08:46:45

---

Dear Katherine,

I can confirm that North East Lincolnshire have no comments to make on the EIA scoping.

Kind Regards

**Cheryl Jarvis FD, MSc, MRTPI**  
Principal Town Planner  
Development Management - Planning  
Places & Communities – NEL



[engie.co.uk](http://engie.co.uk)

New Oxford House, George Street  
Grimsby, North East Lincolnshire, DN31 1HB

---

Reduce your environmental footprint, please do not print this email unless you really need to.

Enquiries to: Rebecca Leggott

[REDACTED]

Your Ref: EN010127  
Our Ref: CON/2022/283  
Date: 7<sup>th</sup> March 2022

**North  
Lincolnshire  
Council**

The Planning Inspectorate National Infrastructure Case  
Team – email only

Your Ref: EN010127

Dear Sir/ Madam,

**Re: Scoping consultation in respect of a proposed DCO for the Mallard Pass Solar Project.**

Thank you for your consultation letter dated 7<sup>th</sup> February 2022.

I have taken the opportunity to review the Environmental Impact Assessment Scoping Report. Technical consultees within the Council have been consulted on this document which will hopefully advise the final production of the Environmental Statement and support a robust submission to the Planning Inspectorate.

Having had regard to the Environmental Impact Assessment Scoping Report, North Lincolnshire Council does not wish to raise any objections to the principle of the proposed scheme or details set out within the EIAR at this moment in time.

I trust that the above is helpful. Please do not hesitate to contact me should you wish to discuss any aspect of this response or this development.

Yours Sincerely

[REDACTED]

**Rebecca Leggott**  
**Principle Development Management Officer**

Name and address of applicant

The Planning Inspectorate  
Environmental Services  
Central Operations  
Temple Quay House  
2 The Square  
Bristol  
BS1 6PN



## Notice of decision to make comment

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**Application number:** 22/0206/NEIAUT

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**Proposal:** **Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations), Application by Mallard Pass Solar Park for an Order granting Development Consent for the Mallard Pass Solar Park - Request for Scoping Opinion**

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**Location:** **Mallard Pass Solar Farm Between Essendine, Carlby & Braceborough, Lincolnshire/Rutland**

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North Kesteven District Council does not wish to make detailed comments in relation to the scope of the Environmental Statement in relation to the proposed Mallard Pass Energy Park but would offer the following observations. The Mallard Pass Energy Park is one of a number of relatively recently publicised large scale solar farms proposed in or straddling Lincolnshire and which are collectively subject to the provisions of the Planning Act (2008) and as such are classified as Nationally Significant Infrastructure Projects (NSIPs).

This includes the proposed circa 500MW Heckington Fen solar park being promoted by Ecotricity in North Kesteven District and which has been accepted by the Planning Inspectorate and where an application for Development Consent Order is expected to be submitted to the Planning Inspectorate by the 4th Quarter 2022. A Scoping Request has been submitted to the Planning Inspectorate, referenced EN010123-000014, to which the Council has formally replied.

The Planning Inspectorate has also recently issued a Scoping Opinion in relation to the Gate Burton Energy Park (EN010131-000006) in West Lindsey District. Elsewhere in Lincolnshire (or spanning the Lincolnshire boundary) the West Burton and Cottam Solar Parks have also been accepted as NSIP projects. The West Burton and Cottam schemes are currently awaiting a Scoping Opinion from the Planning Inspectorate.

The Mallard Pass Solar Park is located around 35km south/south-west of the Heckington Fen solar park and therefore cumulative construction and operational impacts are likely to be negligible across the majority of EIA topic areas as listed in the LDC Design Scoping Request document. There will be no intervisibility between the Mallard Pass and Heckington proposals.

Date: 9th February 2022

District Council Offices, Kesteven Street  
Sleaford, Lincolnshire, NG34 7EF

*Mark Williets*

Development Manager

Paragraph 7.8.3 of the Scoping Report notes that 'the solar PV Site is shown on the published "provisional" Agricultural Land Classification (ALC) maps, published in the 1970's and updated in 2011 by Natural England, as a mixture of mostly undifferentiated Grade 3, with some Grade 2 to the east of Belmesthorpe. The ALC maps do not differentiate Grade 3 into Subgrades 3a and 3b'.

Paragraph 7.8.5 then notes that 'in order to inform the assessment an Agricultural Land Classification survey will be undertaken at the Site. Given the size of the Site the survey will be carried out at a semi-detailed scale. This will involve in the order of 210 auger locations on a regular 200 metre grid across the solar PV Site'.

However whilst paragraph 7.8.14 (and table 9.2 - cumulative effects) confirms that the study area for the ALC will include the site, and 'if relevant, adjoining agricultural land if that might be affected', it does not commit to assessing cumulative agricultural land impacts associated with the development of the other large scale solar proposals; being Gate Burton, West Burton, Cottam and Heckington.

Whilst Lincolnshire has a large quantity and high relative proportion of BMV agricultural land, the potential development of 5 substantial NSIP-scaled solar farms (as currently registered with PINS) has the potential to result in a degree of cumulative adverse impact stemming from temporary loss of opportunity for the continued cultivation of potential BMV land across the County. We would therefore request that the Planning Inspectorate give consideration to this issue being scoped in to the Land Use chapter of the ES and that cumulative agricultural land impacts are considered across the registered projects, adhering to ALC Best Practice published by Natural England.



Katherine King  
Temple Quay House  
2 The Square  
Bristol  
BS1 6PN

Ask for: Mr Duncan Law

Our Ref: NW/22/00079/SCQ

Your Ref:

Date: 9 February 2022

Dear Sir/Madam

**Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11.**

Application No. NW/22/00079/SCQ

Proposal: Application by Mallard Pass Solar Farm Limited (the Applicant) for an Order granting Development Consent for the Mallard Pass Solar Project.

Location: Land Either Side And In The Vicinity Of The East Coast Main Line, Near The Village Of Essendine.

Case Officer: Mr Duncan Law

**Application by Mallard Pass Solar Farm Limited (the Applicant) for an Order granting Development Consent for the Mallard Pass Solar Project (the Proposed Development).**

Thank you for your letter inviting North Northants Council (Wellingborough area) to comment on the above application. We have reviewed the application and provide the following comments:

**No Comment**

Yours faithfully

George Candler  
Executive Director Place and Economy

**Telephone:** 01733 453410 (open 9am - 1pm)  
**Email:** [planningcontrol@peterborough.gov.uk](mailto:planningcontrol@peterborough.gov.uk)  
**Case Officer:** Mr A O Jones  
**Our Ref:** 22/00824/CONSUL  
**Your Ref:** EN010127



Planning Services

Sand Martin House  
Bittern Way  
Fletton Quays  
Peterborough  
PE2 8TY

Ms Katherine King  
The Planning Inspectorate  
Environmental Services  
Central Operations  
2 The Square  
Bristol  
BS1 6PN

**Peterborough Direct:** 01733 747474

7 March 2022

Dear Ms King

### **Planning enquiry**

Proposal: Mallard Pass Solar Project

Site address: Mallard Pass Solar Farm Limited Essendine

Further to your enquiry received on 7 February 2022, in respect of the above, the Local Planning Authority makes the following comments:

Thank you for the opportunity to comment on this proposal.

The proposal site extends towards the south, towards the Peterborough City Council boundary and the GI listed Burghley House and its GII Registered Parkland, and we are concerned that the impact on its setting needs to be fully assessed and understood.

The Burghley Estate is broadly located on the south side of the Welland Valley, with the proposed solar farm including areas on the facing north side of the valley. The Council's Principal Built Environment Officer notes that the setting of Burghley is of high significance and landscape views into and out of the site are of considerable importance. Despite the relatively low lying nature of solar panels, the impact on the House and Parkland is likely to be magnified by the local topography.

The significance of the potential impact on the heritage and landscape setting on Burghley House and Parkland is such that we are of the opinion that it should be assessed within an Environmental Impact Assessment.

Please also find attached the comments, supported by photographs, of Sam Falco, Principal Built Environment Officer, for further information.

I trust that the above advice is of use however should you have any further queries, please do not hesitate to contact me on the details shown at the top of this letter.

Yours sincerely





Mr A O Jones  
Principal Minerals and Waste Officer

## Mallard Pass - Solar Farm

Sam Falco [REDACTED]

Mon 3/7/2022 1:35 PM

To: Alan Jones [REDACTED]

Cc: Stones, Sheila [REDACTED]

Dear Alan,

Thanks for the information on this proposal.

Please note these comments extend to built heritage.

There is a concern that there is potential for impact on the setting of the GI listed Burghley House and its GII Registered Parkland.

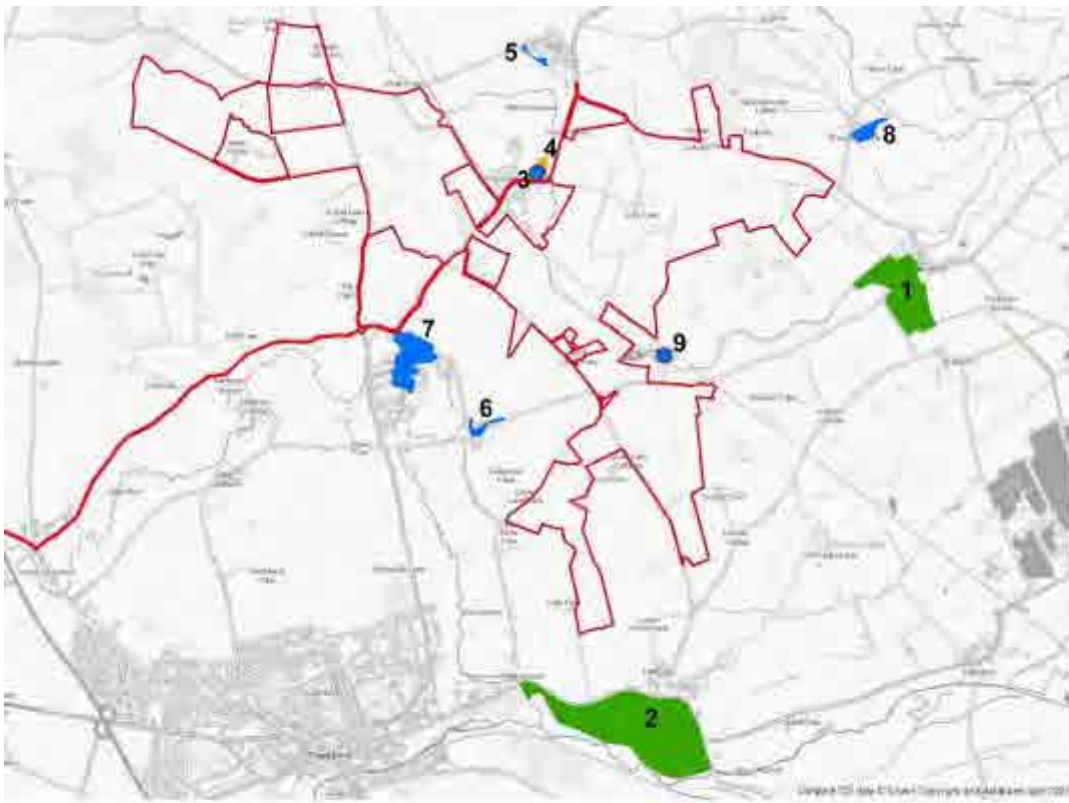
The Burghley Estate is located on the south side of the Welland Valley. The proposed large scale solar farm is sited on the north side of the valley and appears to extend over the top and into the valley. There is strong concern that the solar farm will be in plain view.

Clearly the setting of Burghley is of high significance and landscape views into and out of the site is of considerable importance.

Whilst solar panels are a relatively low lying feature, their impact will be magnified by the fact that it extends into the north side of the valley where the topography sweeps down towards the south. The nature of solar installations is that their character is alien to rural landscapes and must be carefully planned for, especially on undulating ground such as in this location.

A full and thorough impact assessment needs to be implemented which will carefully assess the landscape setting of Burghley House and its Parkland.

I am of the view that the potential heritage and setting impacts on Burghley should be rigorously assessed in the heritage chapter within the EIA.



**Plate 5: Key Designated Heritage Assets**

The statement below has been extracted from the report: *'For all designated heritage assets, it is views towards them that are the critical components of their experience, the vast majority of these being views from up close. The form of the Proposed Development and its distance from these heritage assets means that no views of them would be lost or obscured'.*

This may be the case in many situations, however, the substantial scale of Burghley's Parkland and position means that the Landscape setting and experience at Burghley extends far beyond an individual building.

The images below give an indication of the potential for harm, where the north side of the valley is visible from Burghley Park and the landscape contributes to the setting of this listed building of the highest order.



Best wishes

Sam

Sam Falco | BA (Hons), MSt (Cantab), MPlan

*Principal Built Environment Officer* | Planning Services | Place and Economy Directorate

Address: Peterborough City Council | Sand Martin House | Bittern Way | Fletton Quays | Peterborough | PE2 8TY



**From:** [REDACTED]  
**To:** [Mallard Pass Solar](#)  
**Subject:** Re: EN010127 - Mallard Pass Solar Project - EIA Scoping Notification and Consultation  
**Date:** 07 March 2022 11:30:24  
**Attachments:** [image001.png](#)  
[image003.png](#)

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Dear Sirs

Please see my comments below:

1. This application should not be viewed in isolation, but should be looked at alongside other applications and approvals in Rutland and South Kesteven. RCC approved a major application on Woolfox airfield, which is ex-military land, but work did not start within the stipulated 3 years. Smaller applications have been approved or are under consideration in Stretton, Langham, Uppingham and Ketton. Lincolnshire County Council or South Kesteven District Council should be able to provide details for South Kesteven (*a search of the LCC website using solar farm did not identify just solar farms. I believe that there is an application for a large facility near Bourne*)
2. This is an area of gently rolling open countryside with good views, good quality farmland, many wooded areas and multiple public rights of way. The nature of the land will be completely changed if a solar farm is allowed to proceed.
  - a. A significant quantity of arable and grazing land will be lost to the production of food.
  - b. Walking or riding on public rights of way in the middle of acres of solar panels does not equate to doing so in open countryside and many walkers and riders will be deterred from going there. This is likely to have a significant adverse effect on public health
3. Many of the woods are populated with deer (fallow, roe and muntjac) which graze on the adjacent fields. They will be greatly deterred if there is no grazing available
4. The area is home to many red kites and buzzards which depend on carrion and small mammals for their food. They will not be able to hunt in areas covered with solar panels.

Yours faithfully  
Mary Gallacher  
Pickworth Parish Meeting Representative

[Sent from the all new AOL app for iOS](#)





**Rutland**  
County Council

Rutland County Council

Catnose

Oakham

telephone: 01572 758400

fax: 01572 758373

email: [planning@rutland.gov.uk](mailto:planning@rutland.gov.uk)

web: [www.rutland.gov.uk](http://www.rutland.gov.uk)

Environmental Services  
Central Operations  
Temple Quay House  
2 The Square  
Bristol  
BS1 6PN

Our Ref: 2022/0181/NSIPSO  
Your Ref: EN010127

7/3/2022

Dear Sir/Madam

**SCOPING OPINION REQUEST BY MALLARD PASS SOLAR LIMITED IN  
RELATION TO AN GRANTING DEVELOPMENT CONSENT FOR THE MALLARD  
PASS SOLAR FARM**

Thank you for your letter dated 7<sup>th</sup> February 2022 seeking this Authority's views and comments on the Scoping Report produced by LDA Design on behalf of Mallard Pass Solar Farm Ltd in connection with the above proposal.

The Council has reviewed the information contained within the Scoping Report and offers the following comments which we request the Inspectorate considers in preparation of its final Opinion. Also attached are the following appendices:

Appendix A: Detailed scoping response of the LPA's ecological advisor, which should be taken to represent the Authority's views on the subject.

Appendix B: A comprehensive suite of comments provided by the Mallard Pass Action Group that has been provided independent of the response of the LPA.

Appendix C: Comments on the proposed viewpoints from the Mallard Pass Action Group.

Appendix D: Comments on the proposed viewpoints from The Local Planning Authority (Rutland County Council).

**Comments on topics scoped into the ES**

Landscape and Visual Effects	<ul style="list-style-type: none"><li>The viewpoint locations have not been agreed with Rutland County Council. RCC would expect to be involved and agree the precise location of the viewpoints prior to the submission of any formal application. The attached comments on the viewpoints provided by the Mallards Pass Action Group (Appendix C) and Rutland County Council (Appendix D) should also be taken into consideration when considering potential viewpoints.</li></ul>
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	<ul style="list-style-type: none"> <li>• The Scoping report fails to identify bridleway E182 and byway E123 for consideration. Consideration of the impacts on these routes should be included within the LVIA contained in the ES.</li> <li>• No details are provided on the proposed green infrastructure. RCC would expect details of the green infrastructure to be included in the supporting ES.</li> <li>• Residential and recreational amenity has been scoped out of the EIA and proposed to be submitted and assessed using a Residential Visual Amenity Assessment as a standalone document. It is considered that these areas should not be scoped out and should form part of the LVIA contained in the ES.</li> </ul>
Ecology and Biodiversity	<ul style="list-style-type: none"> <li>• Effects on international sites has been scoped out (paragraph 7.4.114) as the site does not support habitat used by species within the Rutland Water SPA designation however paragraph 7.4.54 states the site is used by ducks which are a designating species for the Rutland Water Ramsar designation therefore it is felt that an assessment of habitat loss for species associated with the Ramsar site <b>should be included in the ES</b>.</li> <li>• It is recommended that the guidance contained in the guidance note in appendix 'A' titled: Leicester, Leicestershire and Rutland Standard Scoping Opinion – biodiversity and ecology <i>Leicestershire and Rutland Environmental Records Centre, July 2018 updated February 2022</i> should be followed when preparing the ES</li> </ul>
Access and Highways	<ul style="list-style-type: none"> <li>• It is considered likely to be reasonable to scope out operational road traffic effects, but no access routes have been identified in the Scoping Report to confirm this approach. This point needs to be clarified before a decision can be made on whether or not to scope this element out.</li> <li>• <b>It is unclear how decommissioning can be scoped out</b> (paragraph 7.5.61) if construction road traffic effects have been scoped in given the likely same traffic volumes. decommissioning should be scoped into the assessment.</li> <li>• The ES should include assessment of the impact of all alternative construction traffic routes unless a specific route is chosen prior to submission. If this is the case, the reasons for discounting alternative routes must be provided.</li> <li>• 3.1.34/35 The permanent primary access off Uffington Road and other secondary accesses are noted, however there are no plans to show these locations, so these are subject to full details to be submitted.</li> <li>• 3.1.36 The internal access tracks will need to a minimum of 3.5m wide to accommodate HGV traffic and full details of passing bays will be required. 6m wide main access – This will not be sufficient for 2 HGVs to pass one another at the</li> </ul>



main entrance. Swept path analysis will be required to determine the junction size, and it must demonstrate that an HGV can enter from both directions whilst another is waiting to leave. Minimum geometry would ordinarily be a minimum of 7.3m wide access with 15m radius kerbs but depends also on the geometry of the major road where swept path analysis will determine the final geometry required.

- 3.4.8 This paragraph sets out the estimated amount of daily construction activities including 60 two-way HGV movements, an average of 100-150 workers with up to 400 at peak times, lgv movements and construction vehicles, but full details are to be advised within the Environmental Assessment. As such, the LHA are unable at this stage to evaluate the full impact.
- 3.4.12 It is noted that a construction management plan will be developed and submitted in due course. This will need to include all phases of development and cover all areas, all site compounds and all accesses to the application site.
- 3.5 – The LHA raise no objection to the operational traffic generation, subject to seeing full details of all proposed permanent accesses.
- 3.6 – The full impact of decommissioning on the surrounding highway network will need to be fully assessed too, similar to the construction phase, however this element could be conditioned and agreed nearer to the decommissioning time. In particular this should pay attention to accesses, unless those installed for the construction purpose are intended to remain for the 40 odd year duration. It is not clear at this stage if that is the intention, or the accesses and any other off-site highway improvements used for construction will be retained for decommissioning. Clarification should be sort. And decommissioning should be scoped into the highways assessment.
- 7.5.9 – The LHA would question the use of DfT counts from 2020, where traffic flows from mid-March onwards would be grossly under usual figures due to Covid. Clarification on what exact period this covers is sort.
- 7.5.39 – The LHA note the trigger point to identify the scope of highway assessment is based on a document nearly 30 years old. The LHA request that the Department for Transport trigger is used due to the length of the construction period and the rural nature of the area and surrounding villages. Once trip generation and distribution are agreed with the LHA, the LHA request that all junctions within Rutland receiving 30 two-way trips from the proposal be assessed.
- There is no detail at this stage where accesses are intended to be formed off the public highway, so no assessment of these can be made at this stage. The Transport Assessment must include a full assessment of all proposed accesses including swept path analysis of the largest anticipated

	<p>vehicle, with one vehicle waiting within the access to leave whilst another enters from either direction (or where the route agreed to be in one direction only, then that direction). Fully detailed and dimensioned plans based on topographical surveys are required with appropriate vehicle to vehicle visibility splays.</p> <ul style="list-style-type: none"><li>• The Transport Assessment must also include the full assessment of all proposed routes including existing geometry to identify all off-site highway improvements required as mitigation, such as junction or carriageway widening, and potentially the provision of passing bays.</li><li>• Clearly the construction period will be the main impact over a 2-year period, followed closely by the decommissioning stage, during which extensive damage could occur to the proposed route/s within the public highway. As such, the LHA will request that detailed joint pre-construction and post-construction highway surveys are carried out with the developer to present the surveys in both video and photographic format to allow any damage to be easily identified. The same will be required by condition for pre-decommissioning and post-decommissioning. The developer will be responsible for any damage identified within these reports as extraordinary traffic and funds to cover the cost of these works, if found necessary, will be recovered under Section 59 of the Highways Act 1980. Whilst the LHA will recommend conditions for the surveys themselves, an informative in relation to Section 59 will be recommended to be appended to the decision should this proposal be approved. Once the chosen/agreed route from the strategic road network is determined then the extent of these surveys can be agreed. Whilst there is an option under Section 59 to agree a sum of money before development commences, it is impossible to estimate what this sum could be, therefore will choose the above-mentioned route to ensure there is NIL cost risk to the LHA.</li><li>• The construction management plan will need to be robust and cover all individual site areas within the overall development and cover all phases of development. Jetted drive-thru wheel wash facilities will be required on ALL site accesses with ALL exiting vehicles driving through and the area between this and the public highway hard surfaced with fully bound material.</li><li>• Any flood lighting, whether temporary (during construction) or permanent shall be positioned such that it does not cause a highway safety issue. This can be conditioned.</li><li>• The LHA will be concerned about glare from the panel units and the design for each area must be such that glare to users of the public highway is avoided at all costs. Again, this can be conditioned, but must also be fully assessed as part of the ES.</li></ul>
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	<ul style="list-style-type: none"> <li>• All new or improved private accesses must be designed to ensure no loose surface material or surface water can fall on to the adjacent public highway. To be conditioned follow receipt of detail design.</li> <li>• Due to the nature and content of this scoping report the LHA are unable to determine what the impact will be on the public highway at this stage and await the submission of the full Transport Assessment. However, the above points are provided to help guide the content of the Transport Assessment.</li> </ul>
Noise and Vibration	<ul style="list-style-type: none"> <li>• <b>Noise monitoring of construction traffic routes should be conducted.</b> No monitoring locations on these routes appears to have been included in the plan at Appendix 7.4.</li> <li>• Paragraph 7.6.20 states that dwellings on construction routes will be considered in the assessment but paragraph 7.6.37 notes that construction traffic noise and vibration effects have been scoped out of the assessment. Given the unconfirmed routing strategy and the likely volume of construction traffic <b>it does not appear that sufficient information has been provided to confidently conclude that there would be no significant noise and vibration effects on receptors, and this should therefore be scoped into the ES.</b></li> <li>• The baseline noise surveys (paragraph 7.6.6) appear to have been Mallard Pass Solar Farm EIA Scoping Review, Review Tables 33848/A5/Scoping Review Report 4 February 2022 TOPIC Comments undertaken in January, if this was during the Government’s Covid Work from Home order which expired on 26th January 2022 then the <b>accuracy of the baseline information would not be considered robust.</b> Additional baseline survey work will therefore be required to accurately reflect an accurate baseline.</li> <li>• Noise from traffic during decommissioning has been scoped out but given that traffic volumes could be similar to during construction, this could also have significant effects and it is <b>considered that this sub-topic should be scoped in.</b></li> </ul>
Water Resources and Ground Conditions	<ul style="list-style-type: none"> <li>• South Kesteven District Council should be added to consultees list at paragraph 7.7.40</li> <li>• The RCC’s LLFA are not concerned about the main areas for the panels, as the installations will not affect the overall area of drainage which will remain permeable, however full details of surface water drainage of all buildings and hard surfaced access roads will be required for further review. The LLFA will expect to see nil discharge from the application site, given the size of the site. It is suggested that roof rainwater harvesting could be considered to assist with the cleaning maintenance of the panels, but soakaways or other sustainable drainage techniques are used. There is no information about how or what the internal access roads will be constructed from, but</li> </ul>

	these could potentially be permeable systems to mirror the existing natural form of surface water drainage.
Agricultural Land Use	<ul style="list-style-type: none"> <li>• Land and Soils in EIA Guide published by IEMA on 17th February 2022 should be considered in the assessment.</li> <li>• Having considered the above scoping opinion Rutland County Council would recommend that the section on Land Use and Agriculture should be amended to include a wider assessment of the cumulative impacts of the development to include other known NSIP developments for solar farms which are proposed in Lincolnshire and Rutland. There are a significant number of projects now proposed and the cumulative impacts of these projects on the best and most versatile agricultural land should be assessed as part of any Environmental Statement. These include sites at Heckington in North Kesteven and Cottam, West Burton, Gate Burton in West Lindsey. these collectively cover an area over 4,000ha the cumulative economic impact and potential effects of these schemes due to the loss of arable agricultural land for low intensity grazing therefore needs to be assessed.</li> </ul>
Glint and Glare	<ul style="list-style-type: none"> <li>• Chapter method is contradictory. The quote from EN3 at paragraph 7.9.8 states that there would be no effects on aviation, however paragraph 7.9.18 includes potential for aviation effects.</li> <li>• The Glint and Glare assessment makes no reference to potential impacts with fixed panels vs tilting panels given that the scheme design yet to be confirmed. The ES should therefore incorporate a full comparison of effects of tilting panels vs fixed panels at the site unless the detailed design has reached a point where the proposed panel type is confirmed.</li> </ul>
Climate Change Impact Assessment	<ul style="list-style-type: none"> <li>• Second Edition of the IEMA GHG in EIA Guide to be issued week commencing 28th February and should be used in the assessment.</li> </ul>
Socio Economics	<ul style="list-style-type: none"> <li>• Report is ambiguous as to whether this topic is scoped in or not. Not included in the list at paragraph 7.2.1 but is included at section 7.11 as scoped in. <b>It is considered that this should be scoped in.</b></li> </ul>

### **Comments on topics scoped out of the ES**

Cultural Heritage	<ul style="list-style-type: none"> <li>• Insufficient evidence has been provided in the report to justify scoping out effects on archaeology. The site is 900 hectares in area and has not been previously substantially developed. Whilst a search of the HER has been undertaken the Scoping</li> </ul>
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	<p>Report acknowledges ongoing geophysical survey work but no detail has been provided in the report to support the claim that there would not be significant effects.</p> <ul style="list-style-type: none"> <li>• The Council therefore recommends that cultural heritage is 'scoped in' and that the Planning Inspectorate requires this of the applicant when issuing their formal Opinion.</li> </ul>
Air Quality	<ul style="list-style-type: none"> <li>• The Scoping Report states that impacts on air quality would be mitigated through the outline Construction Environmental Management Plan (oCEMP). In the absence of detailed information regarding projected HGV movements, the Council does not consider that an assessment of construction air quality effects can be scoped out. It is considered that this <b>should be scoped into the ES</b> to fully assess any impacts from projected HGV movements.</li> </ul>
Arboriculture	<ul style="list-style-type: none"> <li>• Rutland County Council notes the proposal for an Arboricultural Impact Assessment to be undertaken that informs the final design of the scheme with a view to minimising the impact of the proposal on the trees within and surrounding the site. Provided this assessment is submitted alongside the application Rutland County Council does not object to this approach.</li> </ul>
Risks of Major Accidents or Disasters	<ul style="list-style-type: none"> <li>• It is considered that insufficient information has been provided on the proposed battery storage facility to justify scoping out of accidents and disasters. <b>This should be scoped into the ES.</b></li> </ul>
Human Health	<ul style="list-style-type: none"> <li>• Rutland County Council notes the proposal to include topic-specific assessment of human health impacts in individual chapters of the ES and accepts that this is an appropriate method for addressing the matter given the nature of the proposed development.</li> </ul>
Waste	<ul style="list-style-type: none"> <li>• Rutland County Council notes that the scoping report indicates that Waste from construction will be addressed within a separate outline Construction Environmental Management Plan. Similarly waste from decommissioning will be addressed through an outline Decommissioning Environmental Management Plan to be submitted alongside the application. This is considered to be an acceptable approach.</li> </ul>

In addition to the above comments, it is considered that the following matters should be scoped into the Environmental Statement:

- Inclusion of further information regarding the risk of accidents and disasters associated with the battery storage elements of the scheme, and the details submitted should include any mitigation measures proposed to address those risks.
- Inclusion of an assessment of the effects of the development on Archaeology, including geoarchaeological work undertaken, specifically deposit modelling, as part of the desk-based assessment to support assessment of the prehistoric environment, and geophysical survey with a view to informing further evaluation works or mitigation.
- Potential impact of HGV movements on air quality

I trust the above comments are of assistance and should you need clarification on any of the matters please do not hesitate to contact Nick Thrower (Principal Planning Officer) [REDACTED]

Yours sincerely

[REDACTED]

Justin Johnson

Development Manager - Planning

## Leicester, Leicestershire and Rutland Standard Scoping Opinion – biodiversity and ecology

*Leicestershire and Rutland Environmental Records Centre, July 2018 updated February 2022*

An independent consultant should be commissioned to undertake an Ecological Assessment on the likely impact of the scheme in relation to the site and its environs.

### Desk Study

A data search should be requested from Leicestershire and Rutland Environmental Records Centre, to include as a minimum requirement:

- identification of all recognised statutory and non-statutory sites of nature conservation interest likely to be impacted by the proposed development
- All known records for protected species, UKBAP priority species, Local BAP priority species likely to be impacted by the proposed development
- All known records for any other species groups known to be particularly at risk from impact from the proposed development

If statutory sites are likely to be impacted by the development, information on the sites should also be requested from Natural England.

### Surveys

The Assessment should include the following surveys. All habitat and species surveys should be conducted at the appropriate time(s) of year for the species concerned by a suitably trained and licensed individual. Methodologies, dates of survey, times of survey where appropriate, and survey personnel should be clearly stated.

- A habitat survey using either UK Habitat classification methodology or an extended Phase 1 Survey to JNCC 1993 methodology. Surveys must be carried out at an appropriate time of year for the habitat concerned; in particular, grasslands and early successional habitats must be surveyed between late Spring to early Autumn. Surveys carried out outside these times may be rejected.
- Condition assessments of habitats in accordance with technical guidance produced by Natural England to support the Biodiversity Net-gain metric.
- Significant habitats should be recorded to a standard consistent with assessment against the Local Wildlife Site criteria for Leicestershire and Rutland Records of incidental observations of fauna.
- Survey for all protected species and UK/Local BAP species possibly/likely to be impacted by the development proposal, stating the survey methodology used; to include as appropriate:
- A Bat Survey in accordance with national guidelines to identify species, roosts, status of roosts (maternity, feeding, transient, etc), hibernation sites and feeding areas, foraging routes of bats on-site and those that may be impacted off-site
- A Badger Survey in accordance with national guidelines to identify the location of any setts, status of setts (main, outlier, annexe, etc), tracks, feeding areas and territories on-site or off-site and likely to be impacted by the development proposal.
- A field assessment of all water bodies on site and within 500m of the site boundary, if connected by suitable terrestrial habitat to the site, to ascertain suitability for great crested newts, in accordance with the standard Habitat Suitability Index assessment methodology
- Surveys of all ponds assessed as HSI 'Lee Brady' score of 'Average' or above to be followed up with a suite of great crested newt surveys, to national guidelines, OR a commitment to enter the District-level licensing scheme for GCNs available in amber/green risk- zones in



Leicestershire and Rutland (note that DLL is not available in the red-risk zones in Leicestershire;

- Otter survey, if suitable habitat is present
- Crayfish survey – native, White-clawed Crayfish and other species - if suitable habitat is present.
- A Water Vole Survey along all suitable water courses.
- Survey of any other protected or UK/Local BAP species possibly/likely to be impacted by the proposed development
- A Breeding Bird Survey to BTO CBC methodology
- A hedgerow survey, either to the Hedgerow Evaluation and Grading System Survey to the Clements and Tofts 2007 methodology, to Hedgerow Regulations standards, or to Leicester, Leicestershire and Rutland Local Wildlife Site criteria
- A Tree Survey to English Nature Veteran Tree Initiative methodology

## Evaluation and Impact Assessment

The Ecological Assessment should:

- include an analysis of the importance of the recorded habitats and species in a local and national context (local context is provided by the *Guidelines for the selection of Local Wildlife Sites in Leicester, Leicestershire and Rutland*).
- set out the impact of the proposals on significant habitats, statutory and non-statutory sites, wildlife corridors, habitat connectivity and the wider ecological network, including impacts on habitats off-site – for example on nearby watercourses and adjacent habitats.
- Identify the potential impacts of a development on linkages between habitats, both current and potential, such as ecological connectivity between individual woodlands within the landscape.
- Identify impacts on significant populations of protected or UK/Local BAP priority species, including impacts on breeding sites, foraging areas, sheltering, refuge and hibernation sites, ‘commuting’ routes and dispersal habitats.
- Identify indirect effects, such as through increased road traffic, disturbance or lighting.
- Complete the baseline habitat assessment required to assess pre-development biodiversity value of the site, in accordance with DEFRA v.3.0 metric or subsequent revisions.

## Avoidance, Mitigation and Compensation

The Ecological Assessment should:

- Describe avoidance, mitigation and compensation measures introduced in the site design to reduce ecological impact, bearing in mind the recognised hierarchy of avoidance first, then mitigation, with compensation as a last resort.
- Integrate biodiversity enhancements within the site as a priority, in accordance with policies in the NPPF, including opportunities to improve local access to natural greenspace.
- Complete the BNG metric for post-development enhancement, including on-site and off-site measures, and demonstrate that the development is in measurable net-gain for biodiversity.
- Give details of proposed ecological enhancement measures including creation of habitats, restoration or translocation of existing sites and habitats, and provision of linking and stepping-stone habitat to enhance habitat and species connectivity within the site and wider landscape.
- Include a broad outline of post development management arrangements for biodiversity areas, which must be for at least 30 years. Mitigation, compensation and enhancement proposals should reflect the aspirations of Local and National Biodiversity Action Plans.

## References

- Guidelines for the selection of Local Wildlife Sites in Leicester, Leicestershire and Rutland (revised 2011)*. Leicestershire County Council  
<https://www.leicestershire.gov.uk/environment-and-planning/planning/leicestershire-and-rutlandenvironment-records-centre-lrerc>
- Oldham R.S., Keeble, J., Swan, M.J.S., and Jeffcote, M. (2000) Evaluating the suitability of habitat for the great crested newt (*Triturus cristatus*). *Herpetological Journal* 10(4), 143-155).
- JNCC. 2010. *Handbook for Phase 1 Habitat Survey (revised 2010 edition)*. JNCC, Peterborough.  
<http://jncc.defra.gov.uk/page-2468>
- Great Crested Newt Mitigation guidelines, English Nature 2001  
<http://publications.naturalengland.org.uk/publication/810429>
- ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index (2010) ARG  
<http://www.arguk.org/advice-and-guidance/view-category>
- The Great Crested Newt Conservation Handbook. Froglife 2001  
[http://www.froglife.org/documents/GCN\\_Conservation\\_Handbook.pdf](http://www.froglife.org/documents/GCN_Conservation_Handbook.pdf)
- LRERC, 2016. *Space for Wildlife: Leicester, Leicestershire and Rutland Biodiversity Action Plan 2016 – 2026*  
<https://www.leicestershire.gov.uk/environment-and-planning/planning/leicestershire-and-rutlandenvironment-records-centre-lrerc>
- LRERC (various dates). Guidance documents: *Local validation criteria, Bats in buildings survey protocol, Bats and lighting. Great Crested Newt survey protocol, Habitat survey protocol, Surveys and mitigation for invertebrates, Bird surveys, Barn Owl protocol*.  
<https://www.leicestershire.gov.uk/environment-and-planning/planning/leicestershire-and-rutlandenvironment-records-centre-lrerc>
- Natural England, 2021. The Biodiversity Metric 3.0 (JPO39)  
<http://nepubprod.appspot.com/publication/6049804846366720>
- MHCLG, 2021. National Planning Policy Framework (NPPF)  
<https://www.gov.uk/government/publications/national-planning-policy-framework--2>
- DEFRA, 2019. Great Crested newts: district-level licensing schemes  
<https://www.gov.uk/government/publications/great-crested-newts-district-level-licensing-schemes>
- UK Habitat Classification.  
<https://ukhab.org/>
- The Hedgerow Regulations 1997. <https://www.legislation.gov.uk/uksi/1997/1160/made>
- Clements, D K & Tofts, R.J. 1992. *Hedgerow Evaluation and Grading System (HEGS)*. CPM

## Comments from Mallard Pass Action Group:

### Mallard Pass Scoping Request – review by the committee of Mallard Pass Action Group

We have paid particular attention to the objectives of this scoping exercise, notably:

- The potential significant environmental effects which require assessment
- The assessment methodology for each environmental topic proposed to be scoped into the EIA process
- Sources of information
- Issues of perceived concern
- Any other areas which should be addressed in the assessment

Overall, our concerns relate to the number of areas that are to be scoped out of the EIA. In some cases, there is insufficient early data, and/or an underestimated impact of the issues on receptors. Given the scale of this NSIP project, it is essential nothing is scoped out too early in the process.

1.1.1. P11. States the generation of an **anticipated 350MW**. Should it not be more definitive and explain the underlying assumptions that arrive at 350MW.

1.2.2 P12 A developer of an NSIP project should be able to demonstrate effective delivery of similar type projects. Windel only states '**projects** ranging from 10MW to 320MW'. When previously questioned in the public consultation, they could not confirm any projects actually completed.

2.1.1 P18. Given the MP have clearly identified 54 agricultural fields, the exact size of the development should be clear. It states 'approximately 900Ha'. This report is about assessment methodology based on detailed information.

2.4.2 P20. States: "The Site is predominantly located in Flood Zone 1, which is an area classed as having a low risk from fluvial and tidal flooding (less than 1 in 1,000 annual probability, as indicated by the EA Flood Map for Planning). The Site is predominantly located within an area of very low risk from surface water flooding. Areas of low to high surface water flood risk are located in the northern and western and central areas of the Site, associated with the West Glen River and its tributaries." Firstly, this mentions the **site**, MP should consider impacts **outside of the site** as well and draw upon local information from residents which can provide evidence of both pluvial and fluvial flooding. Mallard Pass has acknowledged some flood issues on site and the need to elevate panels, we would challenge this baseline information as not being representative and inclusive.

2.9.3. P25. "The solar PV Site is characterised by a high groundwater vulnerability. The northern and western extent of the solar PV Site is located within Zone II (Outer Protection) Source Protection one (SPZ)

- Figure 2.1 P26. The chart is misleading as the red/orange denote the solar PV site, when in fact those areas also include all the mitigation areas.
- Figure 2.6 P30. Water Resources and Flood extents. This chart does not show the impact on Greatford outside the site, and it only highlights 1 in 20 as worst-case scenario. As above 2.4.2 we know there is ongoing flooding in Greatford and the bottom of Essendine hill on a regular basis.

3.1.8 P33 Tracker panels could cause different levels and direction of glint and glare depending on time of day. Scoping document should include this point.

- Plate 1 and Plate 2 images of panels – can Mallard Pass ensure the pictures are representative of the panel dimensions given - they look a lot lower, especially when you consider you need to add the elevation off the ground to the panel dimensions.

3.1.12. P36 “The frames upon which the solar PV panels will be mounted will be pile driven or screw mounted into the ground to a typical depth of approximately 1.5m, subject to ground conditions. The option to install concrete blocks known as “shoes” may also be considered, avoiding the need for driven and screw anchored installation, therefore minimising ground disturbance.” This decision is key and there will be significant ground disturbance with pile driven or screw mounted frames, so this worst-case scenario must be reflected on the impacts to soil compaction increasing flood risk to bio-diversity disturbance. With the recent find of the Roman mosaic in Rutland, and the finding in 1961 of a Roman grave with human remains within the Mallard Pass site outside Braceborough, the human remains of which are held by the University of Cambridge, it is highly likely that further archaeologically significant remains will be on site. These are very likely to be disturbed by the proposed piles.

3.1.14. P36. “There are two options for inverters.” MP need to clearly state the maximum adverse effects of their choice, but importantly should be clear why there is uncertainty. Ref EN-1 2.49.17

3.1.18. P37. “The footprint of the transformers will typically be 12.5m x 2.5m and 3m in height. The configuration of equipment will depend on the iterative design process and influenced by technical as environmental factors.” As above they should specify why there is uncertainty and maximum impact scenario of a design.

3.1.21. P37 “The configuration of equipment will depend on the iterative design process as influenced by technical and environmental factors.” As above, too vague.

3.1.29. P40 “A fence will enclose the operational area of the Proposed Development. The fence is likely to be a ‘deer fence’ (wooden or metal) and approximately 2m in height. Pole mounted internal facing closed circuit television (CCTV) systems installed at a height of up to 3.5m”

What is their rationale for 2m high deer fencing, it is too low, and the deer will try and jump it, and some will be injured? Why is the CCTV so high?

“Clearances above ground, or the inclusion of mammal gates will be included permit the passage of wildlife”. Need more detail on clearance or gates and exact wildlife expected to go through.

3.1.30. P41 “For security requirements, operational lighting would include Passive Infra-red Detector (PID) systems which would be installed around the perimeter of the Proposed Development.” There is no consideration for the impact on wildlife, particularly light-sensitive animals and how night-time lighting would affect their normal habitat. How sensitive will the PID be, what animals could trigger it and affect others, how long would it stay on?

3.1.31. P41 “The lighting of the primary substation would be in accordance with Health and Safety requirements, particularly around any emergency exits where there would be lighting, similar to street lighting that operates from dusk. Otherwise, there would be low level lighting on specific operational units that would again operate from dusk. All lighting would seek to limit any impact on sensitive receptors.”

It needs to assess the sensitive receptors and how they will be affected and whether this has a negative impact on their habitat.

### 3.1.37 P43 Battery Energy Storage System.

Incredibly these have not been included in the section on Risk of Major Accidents and/or Disasters. Indeed, Risk of Major Accidents and/or Disasters has been “scoped out”. The type of battery has not been specified - it is highly likely that Lithium-ion batteries will be used.

Lithium-ion batteries can and have failed leading to electrochemical reactions. These reactions do not require oxygen and can spread rapidly giving rise to “thermal runaways.” Normally, and incorrectly referred to as a fire. The only method of dealing with “thermal runaways” is cooling with large amounts of water until the reaction ceases. The electrochemical reaction emits toxic gases including hydrogen fluoride. Explosive gases are then emitted which can cause large explosions. There are numerous instances all over the world of serious battery fires and toxic explosions.

Scoping should include design of battery containers to prevent electrochemical reactions, detection, suppression and action to be taken to cool the reaction with sufficient quantities of water. Batteries were included in the Sunnica Energy Farm Environment Impact Assessment Scoping Report and in the Cleve Hill Solar Park Environmental assessment, so there is a precedent for it to be included in the scoping report for Mallard Pass.

Table 3.1: P44 “Minimum Offsets to Landscape and Ecological Features and Designations” table. Are these just statutory minimums adopted? Would it be better to also show a maximum as these offsets do not demonstrate full acknowledgement of the importance for wider bio-diversity gains? It shows little sensitivity to many of the receptors.

3.2.3. “The existing Public Rights of Way (PRoW) that cross the Site will be retained and incorporated within multifunctional green corridors. Subject to the construction phasing and methodology there may be a requirement to temporarily divert a public right of way during the construction phase, the details of which will be sought to be agreed with the relevant key stakeholders, with an appropriate temporary alternative provided.”

There would need to be a clear risk assessment of diverting or removing a PRoW during construction, understanding the consequent behavior of the walker, horse rider or cyclist. This needs to be clearly scoped due to safety and well-being issues.

3.2.4 P45 “Potential areas for mitigation and enhancement as identified on Figure 3.1 will also provide areas for green infrastructure and potentially be used to deliver a 10% net gain in biodiversity”.

What does “potentially be used” suggest – further clarity required. If not the bio-diversity gain, then what? Bio-diversity gains need to be quantified and qualified and over what time period. It is not a pure volume metric; it has to be determined through its appropriateness to each habitat and should be measured on a quality index. Every mitigation area will have different needs. It will need to be proven how a bio-diversity gain is maintained through careful management. Further clarity on all this methodology is required.

3.4.1 P46. Construction. Due to start in 2026. Other published Mallard Pass documents say 2024. Can they clarify.

3.4.5 P48. AIL loads. Mallard Pass identified the potential need for temporary localised road widening, there is no mention of assessing the likely impact on biodiversity and other receptors. The road in question off the A1 between Great Casterton and Ryhall is very windy and is bounded by hedgerow. Equally there are limited options between Ryhall and Essendine.

3.4.8 P48 “it is anticipated that during the peak construction period, there could be 30 Heavy Goods Vehicles (HGV) deliveries per day, which equates to 60 two-way movements”. Looking at other solar farm NSIPs, like Sunnica and Cleve Hill, these estimates look low which will have a knock-on effect of all the assumptions made about traffic impacts, noise impacts and air pollution impacts. There should be greater clarity on the assumptions underpinning these numbers.

3.4.9. P49 “Temporary Construction Compound. During the construction phase, a primary construction compound is expected to be located onsite with one or more temporary secondary construction compound(s) provided at different locations throughout the solar PV Site, as well as temporary roadways, to facilitate access to all parts of the solar PV Site. The details of which (including location, scale and duration) will be set out and described within the ES”. This is fundamental to the whole traffic plan; how can assumptions be made about traffic loads and routing without stating where these temporary compounds will be. More information is required upfront as they may be many significant impacts.

3.4.10 P49 Construction Reinstatement and Habitat Creation. “A programme of construction reinstatement and habitat creation will commence during the construction phase”. The underlying grass should be established well before (at least 2 years) construction starts so as to give some resilience to the soil being run on and compacted during construction, established grass will recover far more quickly and provide more protection from flooding and sediment loss than grass established during or after construction. There is no indication of these considerations in the report. Also, the plan should consider ground conditions and work should not be undertaken on wet soils, as it will create long term compaction leading to poor water infiltration and increased flood and sediment loss.

### 3.5. Operation

3.5.1. P50 “The operational life of the Proposed Development is not proposed to be specified in the application and the Applicant is not seeking a time limited consent.”

Is it realistic to assume the life of a solar farm is unlimited? Surely there will be a time limit to the technology as newer more efficient technologies come on board. Equally there will be a life span of the components. They will need to be replaced every 25 years, impacting the receptors during the operational phase. If any part of the site is deemed non-operational, will it be automatically decommissioned?

The land may need to be returned to some other function deemed more important at a future date, should the planning lifespan be unlimited?

3.5.3.P50 “The land underneath and around the panels **could** be managed through a combination of sheep grazing and/or hay/silage production in order to maintain the field vegetation during the operational phase of the Proposed Development”.

“Could” is very vague. The method of management here is key to ensuring the right biodiversity is maintained and flood risk is fully mitigated by reducing unnecessary compaction. There seems little acknowledgment of needing a clear assessment of pasture management, noting all key receptors. Have they fully explored the options?

3.7.3 P53 “A series of Design Principles will be developed for the Proposed Development. The Design Principles for the Proposed Development will align with the core purposes and ambitions of the ‘Design Principles for National Infrastructure’ which are Climate, People, Places and Value.”

“Principles should act as reminders to the delivery organisation, a steer in the right direction, and a means of restoring focus to the big picture...Design Principles should be a point of departure, setting

out a common understanding [of] the issues to be addressed.” (Developing Design Principles for National Infrastructure (NIC, 2018)).”

Taking Value as an example:

- Provide wider economic and supply chain benefits, and a positive legacy for the communities in and around Mallard Pass Solar Farm.
- Respect the wider landscape and the intrinsic value of the countryside and natural environment.
- Respect and respond to features of heritage value.

Taking People as an example:

- Engage openly and transparently with local communities, stakeholders and neighbours, making use of local knowledge to improve our project;  Consider feedback carefully and engage and respond meaningfully.
- Behave as a considerate neighbour through both construction and operation.
- Respect public amenity.

What method and process will they use to assess the above are delivered?

4.1.2. P57 “Consultation alongside the EIA process is critical to the development of a comprehensive and proportionate ES. The views of statutory and non-statutory consultees are important to ensure that the EIA from the outset focuses on the environmental studies and to identify specific issues where significant environmental effects are likely, and where further investigation is required”.

Please check Mallard Pass’s statutory and non-statutory lists. They have some errors and inconsistencies in relation to cross county (Lincs & Rutland) coverage with certain organisations.

4.2.2. P58 “All responses received during consultation are being carefully considered and taken into account in the development of the Proposed Development and a consultation summary report has been released at the same time as this EIA Scoping Request.”

The Scoping request was 7<sup>th</sup> Feb, the consultation summary report booklet was received in the post 24-25<sup>th</sup> February.

5.4.7. P63 “Paragraph 4.2.2 of the NPS states that: “To consider the potential effects, including benefits, of a proposal for a project, the IPC [now PINS] will find it helpful if the applicant sets out information on the likely significant social and economic effects of the development, and shows how any likely significant negative effects would be avoided or mitigated. This information could include matters such as employment, equality, community cohesion and well-being.”

How will they demonstrate community cohesion and well-being, what methodology will they use?

5.5.5. P67 Section 2.48 of the Draft NPS EN-3 sets out key influences that developers should consider when selecting sites for solar development” e.g., Proximity of a site to dwellings – why is there no minimum agreed buffer in their offsets list?

5.5.8 P67 “Draft NPS EN-5 includes a new section on ‘Environmental and Biodiversity Net Gain’ at Section 2.8, which states that when planning and evaluating a projects contribution to environmental and biodiversity net gain, it will be important, for both the Applicant and examining Authority, to recognise that “the linear nature of electricity networks infrastructure allows excellent opportunities to: i) reconnect important habitats via green corridors, biodiversity stepping zones, and re-establishment of appropriate hedgerows; and/or ii) connect people to the environment, for instance via footpaths and cycleways constructed in tandem with biodiversity enhancements.”

Please request clarity on how these will be delivered.



5.7.7. P71 “Policy RE1 ‘Renewable Energy Generation’ of the SKDC Local Plan states that proposals for renewable energy generation will be supported subject to meeting the criteria outlined in Appendix 3 ‘Renewable Energy’ of the Local Plan and provided that:

- The proposal does not negatively impact the district’s agricultural asset.
- The proposal can demonstrate the support of affected local communities.
- The proposal includes details of the transmission of power produces.
- The proposal details that all apparatus related to renewable energy production will be removed from the site when power production ceases.
- That the proposal complies with any other relevant Local Plan policies and national planning policy.”

It is critical this underpins SKDC’s assessment of Mallard Pass’s proposed scheme.

6.3.1. P74 “Whilst every ES should provide a full factual description of the development, the **emphasis** of Schedule 4 (of the EIA Regulations) is on the "significant" environmental effects to which a development is likely to give rise.”

Emphasis does not mean to the preclusion of other impacts. How significant is evaluated can be differently interpreted.

6.5.3. P75 “The ‘future baseline’ scenario will describe the changes from the baseline scenario as far as natural changes can be established, although it is noted without the Proposed Development that the solar PV Site would continue to be intensively managed for agricultural purposes.” The baseline should consider likely forthcoming changes as landowners diversify e.g., the land is used for bio-energy fuels, re-wilding etc

6.5.19.P80 “Cumulative effects with other schemes will be assessed as part of the EIA process.”

The other schemes need to be identified first before any areas are scoped out – this is not obvious in the recommendations of this report. The scheme might not be solar e.g., traffic impacts for new housing, quarry, water pipeline and other solar farms in the area.

6.5.27. P81 “Mitigation measures are developed as part of an **iterative** process and therefore will be developed throughout the EIA process in response to the findings of the initial assessments.”

How can so many areas in this report be scoped out if a number of mitigation measures are going to be iterative?

6.5.30. P83 “Our approach to EIA is not to undertake an assessment of environmental effects where primary or tertiary mitigation measures are sufficient to avoid a likely significant effect occurring. This approach allows the ES to be focussed solely on the likely significant environmental effects and not theoretical significant effects that will not materialise as a result of the design or standard construction practices.”

Is this wholly valid?

6.5.35. P84. Regulation 14(2)(d) of the EIA Regulations also requires that the ES should include: "A description of the reasonable alternatives studies by the applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment..."

This is not apparent in any documentation so far. Can this be reviewed.

7.3.2 P89 “A number of viewpoints have been identified from within and around the Site from publicly accessible locations to understand the nature of existing views towards and within the Site to inform the assessment. PLEASE SEE SEPARATE “viewpoints.doc” which has reviewed all the proposed viewpoints and the choice of locations for photomontages. As locals we are best equipped to understand the viewpoints for both transient and amenity users.

7.3.3 P90." However, the gently undulating terrain combined with woodland stands, vegetated field boundaries and roadsides act to provide a wooded backdrop to many views and, therefore, screening the Site from further afield, limiting distant views from outside of the Site."

This baseline assessment is not the case for a large proportion of the site which has open views. These statements are misleading.

7.3.15. P95 "The study area includes the settlements of Essendine, Ryhall, Belmesthorpe, and fringes of Stamford, scattered properties as well as recreational routes and PRow (footpaths, bridleways etc.) and local roads. "The viewpoints cover a wider area than listed including the outskirts of Carlby, Braceborough, Aunby, Pickworth etc.

7.3.17 p95 Grade II\* **Burley** House RPG (approximately 1.5km south), (considered as part of landscape value); - should be Burghley House – error repeated throughout.

7.3.20. P96 A preliminary assessment from desk-study and fieldwork indicates that potential landscape character and visual effects would likely be limited to the solar PV Site and its local context up to approximately 500m east and south, and 1km west and 2km north. Areas at greater distances from the Site in these respective directions are **unlikely** to experience any notable or perceptible change to their prevailing characteristics, owing to the limited intervisibility of the Proposed Development as a result of intervening vegetation, existing built development and landform.

This is a vague statement and needs to be backed up with robust data.

7.3.21. P97. "The representative viewpoints have been selected from publicly accessible locations and generally where the greatest potential effects are anticipated to be experienced. The viewpoint locations represent a wide range of receptors, providing a 'sample' of the potential effects from the locality, with locations purposefully selected to illustrate the range of visual effects; or to specifically ensure the representation of a particularly sensitive receptor." **Assessment of viewpoints covered in separate 'viewpoints.doc'**.

7.3.22 P97 "we propose to undertake rendered photomontages for years 1 and 15 of the Proposed Development from Viewpoints 1, 2, 3, 10 and 11 to demonstrate the views" **Assessment covered in separate 'viewpoints.doc'. Most of the photomontages selected by Mallard Pass do not give a representative view of the solar panels.**

7.3.27 P91 "The reversible nature of the Proposed Development means that the landscape can be returned to its former agricultural use, should it be decommissioned".

This makes a huge assumption that the soil will be capable of returning to agricultural farming. What evidence is there to underpin this assumption?

7.3.37. P104 "Early and continued development of the design has identified potentially affected settlement fringes and residential properties and resultantly, the proposed built solar development footprint has been set back considerably from these boundaries (e.g., around Essendine), providing a sufficient buffer between these receptors and Proposed Development, to avoid the potential risk of 'overwhelming' or 'over-bearing' visual effects to residential properties. As such, residential amenity will not be assessed within this LVIA and is scoped out of the EIA. A Residential Visual Amenity Assessment will be undertaken and submitted as part as a standalone report as part of the DCO application."

**Given the level of feedback to the first consultation it is evident that residents feel their visual amenity is still heavily affected. Whether they live next to the PV site or close to it, in their day-to-day life the visual impact is significant. The level of detail on mitigation so far does not alleviate the visual concerns, so this should not be scoped out at the next stage.**

## Ecology

7.4.7. P106 “The details of the surveys carried out and the baseline conditions identified are set out in the Ecological Baseline report provided at Appendix 7.2”

There are concerns about the timing, range and extent of some of these surveys not being sufficiently robust to provide an accurate assessment of wildlife present. E.g.

- Great crested eDNA should be done between mid-April and end June. They took samples on 29 April, which is within the timing, but is still a bit early. Evidence of GCN in Braceborough shows they appear in May.
- Phase 1 habitat survey - end of March and end April is quite early, especially for many flowering plants.
- Wintering birds - should be monthly in Winter (Dec-Mar). Surveys only undertaken in Nov and Dec, so inadequate. No detail on weather conditions on the visits which could affect the result.
- Bats should be surveyed May - Sept, but they didn't survey for them explicitly.
- Other protected species surveys Appendix 2.30: Surveys for foraging and commuting bats, roosting bats, hazel dormouse, reptiles, invertebrates and plants (detailed botanical survey) were not undertaken, despite some habitats on Site being suitable for these species.

7.4.23 P110 “All the hedgerows on Site are considered to meet the description of the Hedgerows HPI”.

Given hedgerows are an HPI, the solar PV should be far more sensitively positioned to enable the best biodiversity to develop. What basis has been used to set the margins?

7.4.25 P110 “The west Glen River has the potential to meet the description of the Rivers HPI (Maddock, 2011) based on the presence of aquatic species and water quality and hydrological parameters, although this was not assessed in detail.”

Should this not be further assessed given the likelihood of it being an HPI?

7.4.49.P116 “No records of polecat *Mustela putorius* were returned by the LRC or LRERC but this species is reportedly present on the western edge of the Site along the Drift (information supplied by Tom Tew of Naturespace). This species is an SPI.”

Polecat has been seen near Banthorpe lodge. “Further investigation required.

7.4.76. P123. Designated sites: “however, accidental damage and other direct or indirect effects may occur to the Ryhall Pasture and Little Warren Verges SSSI and Tolethorpe Road Verges SSSI, adjacent to the Site. Accidental damage will be avoided by implementing appropriate control measures during the construction stage (tertiary mitigation).”

Due to the nature of the Proposed Development, no impacts to the SSSIs are likely to occur as a result of noise or air pollution.”

Is this assumption valid? There will be pollution from the considerable number of lorries using a very narrow road not just for the new battery storage facility but for access to the PV areas on that side of the site. Also, the proposed mitigation of fencing may not be at all viable as roads are not wide enough already. The verges need to be protected and the fencing process in itself could cause damage.

7.4.77 P 123 “Potential adverse impacts to the integrity of statutory designated sites through loss of supporting habitat is scoped out of the EIA for all phases”.

That is a contradiction to the issues previously highlighted and should not be scoped out.

7.4.89. P127 “During the operational phase it is unlikely that any impact would arise on badgers and therefore is scoped out of the EI”.

There needs to be more survey work to understand the badger behaviour during operation and this should not be scoped out. Experience has shown they create new setts and move around, farmers are constantly having to be careful when using machinery. There have been issues recently close to the site, of badgers digging next to the gas pipeline. There were no surveys in the woodland, therefore limited picture of their habitats.

7.4.95. P128 “No impacts to hazel dormouse during the operational phase are likely to occur.” These are therefore scoped out of the EIA.”

Hazel dormice have been seen close to the site, should they be scoped out?

7.4.98. P129 Other mammals P128 “Due to the nature of the Proposed Development, no impacts are likely to arise during the operational phase. These are therefore scoped out of the EIA.”

The impact on brown hares and their behaviour needs to be assessed. Will the 30x30 gates provide sufficient access to the PV area or will there be significant injury/death due to fencing next to roads?

7.4.103 P130 “Therefore, impacts to birds during the operational phase of the Proposed Development is scoped out of the EIA.”

Further review needs to be done on the impact of ground nesting birds. i.e., what kind of ground cover do different ground nesting birds require to ensure a safe undisturbed habitat. What kinds of maintenance activity (sheep grazing, mowing) will disturb that habitat?

7.4.107. P131 Amphibians “The Site supports few terrestrial habitats with the potential to support amphibians and these are proposed to be retained. All ponds are also proposed to be retained and none within the Site, or adjacent to it, were found to support GCN, though common toad may be present.”

There are GCN in Braceborough and therefore likely to be in other ponds on the site, the survey was conducted at the wrong time to identify their presence, further investigation is required.

7.4.111 P132 Invertebrates. “Operational impacts to invertebrates are scoped out of the EIA.”

There is insufficient data available, no survey work was conducted. There needs to be a better understanding of the compaction impacts on the soil and how the changes from agriculture to solar PV land affects their habitat.

7.4.115. P132 “During the operational phase of the Proposed Development, no impacts to protected species are likely to occur as:

- The lighting scheme will be designed to avoid artificial lighting on linear features (including hedgerows and water courses), woodland and other retained or created habitats. This will avoid adverse effects on bats, dormice, otter, water vole, amphibians, birds and other SPIs.
- Onsite operational traffic will be minimal and limited to maintenance vehicle movements at very low intensity, with a negligible risk of accidentally injuring or killing any protected or notable species such as wild mammals, amphibians, reptiles or birds.
- No regular presence or work is envisaged onsite leading to disturbance of retained or created habitats.

The above is an assumption and a statement and not backed with clear evidence or assessment. They cannot define the impacts clearly as there is no information on the type of management activities in operation and the different impacts from each activity. Mowing under panels is different to grazing sheep to window-cleaning the panels to using machinery to take haylage - all have different impacts.

7.4.116. Consultation. P133 “The consultation process to be undertaken will involve consultation with the Ecology Officers for Leicestershire, Rutland and Lincolnshire County Councils. Non-statutory consultees such as

the Wildlife Trusts will also be approached. These stakeholders will be provided with the summary of the baseline of ecological conditions, the general proposals and the principals which will be used for the detailed design of the Proposed Development.”

With so many areas scoped out of the operational EIAs, and only preliminary data and survey work so far, how can the stakeholders receive an informed baseline of information?

**A report from Natural England: Evidence review of the impact of solar farms on birds, bats and general ecology (NEER012) 2017:**

“When considering site selection for utility scale solar developments it is generally agreed that protected areas should be avoided. This is reflected in the scientific literature where modelling approaches include many factors such as economic considerations and visual impact but also often avoid protected areas such as SPAs. This is echoed by organisations such as Natural England and the RSPB that recommend that solar PV developments should not be built on or near protected areas. As sensitive species and habitats are not necessarily restricted to the geographical boundaries of protected areas, it is imperative that research is undertaken into the potential interactions between solar PV arrays and biodiversity especially sensitive habitats and species.”

“...concerns have been raised that solar PV developments have the potential to negatively impact a broad range of taxa including birds, bats, mammals, insects and plants. In light of this, it is highly recommended that research is undertaken into the ecological impacts of solar PV arrays across a broad range of taxa at multiple geographical scales.”

**Given these conclusions, it is too early in the process to suggest that so many areas are scoped out of the EIA.**

### Highways

7.5.39/40. P143. “The IEMA Guidelines for the Environmental Assessment of Road Traffic identifies two broad rules-of-thumb which could be used as a screening process to determine the scale and extent of assessment. These rules are summarised as follows

- Rule 1 – include highway links where traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%).
- Rule 2 – include any other specifically sensitive areas where traffic flows have increased by 10% or more.

Any links within the study area that fall below these thresholds will be scoped out of the assessment, unless specifically requested to be incorporated by key stakeholders or the local Highway Authorities.” **The fundamental question is whether the vehicles movements have been accurately forecast. This affects all associated scoping assumptions.** If you refer to Sunnica’s CTMP

[https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010106/EN010106-001865-SEF\\_ES\\_6.2\\_Appendix\\_13C\\_Framework%20Construction%20Traffic%20Management%20Plan%20and%20Travel%20Plan.pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010106/EN010106-001865-SEF_ES_6.2_Appendix_13C_Framework%20Construction%20Traffic%20Management%20Plan%20and%20Travel%20Plan.pdf), you will see their level of vehicle movements for a 2400 solar PV area. Mallard Pass is disproportionately low.

7.5.42. P144 Sensitive receptors.

- Route 1: should list other drivers at this critical Great Casterton T-junction after having come off the A1; users of the villages of Ryhall & Essendine.
- Route 2. There are 2 primary schools not listed in Uffington; users of the villages of Tallington and Uffington; users of the town of Stamford.

All of these are sensitive receptors. Aside from noise, pollution, safety is a major consideration.

7.5.44. P145 “Potential Effects The potential effects to be assessed during the construction phase of the Proposed Development on those links that exceed the thresholds set out at paragraph 7.5.39 are as follows:

- Severance.
- Driver Delay.
- Pedestrian Delay.

- Pedestrian and Cyclist Amenity.
- Fear and Intimidation.
- Accidents and Road Safety.
- Hazardous Loads.”

Is The IEMA the only baseline methodology for assessing these impacts? An increase in certain traffic levels may not create a linear impact on some of the affects listed above. There also needs to be some assessment which is not purely quantitative and linear but has a qualitative and local knowledge inputs. The methodology seems very unrepresentative of the reality that would be experienced if the impact was deemed medium for example.

7.5.56. P148 Hazardous or Dangerous Loads. This is scoped out of the assessment. There are hazards along all 3 routes of different descriptions. There is high potential for collision with other vehicles with articulated transport in particular due to narrow or windy roads, hills – already known accident hotspots. Given the sensitive nature of some of the loads – toxic substance contained within the solar panels, batteries etc, it seems very unwise to scope this out of the EIA.

7.5.59. P149 “it is considered that the significance of the environmental effects of the operational phase of the Proposed Development would be negligible with respect to access and highways and therefore a detailed assessment of the operational phase of the Proposed Development is proposed to be scoped out of the EIA.” Given it is not clear what kind of management activities will take place, can it be clarified what has been used as a worst-case scenario to underpin the vehicle movements and scope this out?

7.6. P151 Noise and Vibration. Baseline conditions. The list is not complete, it should include the following: 1 Grange Farm Cottage, 2 Grange Farm Cottage; Grange Farm; West Barn Cottage, Lodge Cottage, Braceborough Lodge Farm

7.6.10. P153. The NPPF also notes that tranquil areas which have remained relatively undisturbed by noise, and which are prized for their recreational and amenity value should be identified and protected.

7.6.22 Desk and field study. Appendix 7.4 only highlights the locations, yet the data is only going to be provided at the ES. Given how critical this is to residents, they would want to see something in the PEIR for the public consultation in the spring. The whole PV site plan could change depending on the buffer they allow for nearby properties which could be impacted by these results. The test frequency appears very limited in 7.6.23, will it provide a representative baseline? Will any allowance be made for the impact of wind direction and to extend the 250m boundary and factor it into the noise level range (high wind, low wind etc)

7.6.31. P158. “Some construction activities, such as piling operations, drilling or vibratory rolling techniques, can generate vibration levels in close proximity to their use (less than 50m typically)”.

If proximity to any residential areas is less than 50m, there should be an assessment of the wider impacts on those properties i.e., not just noise, dust etc, but importantly if older properties have no foundations what the impact of those vibrations could be. Clarity upfront on residential buffers/margins to proximity of solar PV could resolve many questions/concerns.

7.6.36. P160. “Primary mitigation will first involve adjusting the design of the Proposed Development to maximise (where possible) the distance from areas including noise-generating plant from noise-sensitive receptors. The detailed design of the Proposed Development, including final plant locations and selections, can be controlled through a requirement of the DCO that would establish suitable noise limits at the boundary of the Site”.

Would it not be more helpful if Mallard Pass at the earlier stages set their noise limits and adjusted their plan accordingly, rather than it being a requirement of the DCO? They could share their mitigation measures earlier in the process.

7.6.37 P “Noise impacts from construction traffic is therefore scoped out of the EIA”.

This assumes the baseline for vehicle movements is correct which we don’t believe it is – ref 6.6.37.

### **Water Resources and Ground Conditions 7.7**

7.7.2. “A desk-based survey was undertaken in December 2021 to understand the baseline conditions for water resources and ground conditions at the Site.” Whilst desk-based work is always a starting point, there seems to be no further assessment based on local knowledge and other available information. The report has been produced by Argyll Environmental in Brighton and contains a vast amount of data, site diagrams, flood risk areas, wildlife info, etc, gathered from the EA, Natural England, and other sources, but Argyll themselves point out this report on its own is not sufficient.

7.7.5. P162. “An initial baseline study shows that elements of the Proposed Development north of Essendine village and south of Wood Farm lie within groundwater Source Protection Zones (SPZ) 1 and 2 and outwith of the River Welland catchment Surface Water Safeguard Zone”.

Given this information it will be critical to avoid any water contamination from damaged solar panels and/or on-site battery storage faults (Fires) and mitigation needs to be clearly identified.

7.7.6 P162. This has “‘high’ Impact Risk Zone associated with the SSSI at Ryhall Pasture and Little Warren Verges”.

As above there needs to be clear mitigation or re-design to avoid any contamination issues.

7.7.12. P164. “A Site walkover will be undertaken to verify the location and nature of watercourses and waterbodies within the study area likely to be affected by the Proposed Development. The Site walkover will augment the desk study.”

Depending on when the site walkover is done will significantly impact the conclusions reached. 2021/22 has been very dry. To supplement the desk and walkover studies, every parish council and flood warden where applicable should also be contacted to build the knowledge base.

7.7.13. P164. “Infiltration testing will be conducted at the Site in early 2022. The infiltration testing will comprise of test pits which will be utilised for testing to Building Research Establishment (BRE) 365 (2016) standard in order to confirm the permeability of the underlying soils and suitability for infiltration drainage.”  
Is this the right testing approach?

7.7.19. P166. “Draft NPS EN-3 (BEIS, 2021) outlines the requirements for an FRA and the promotion of the use of sustainable drainage systems (SuDS).”

Mallard Pass have not detailed the use of SuDS so far, just acknowledged there are flood risk areas and will raise the height of solar panels. This does not take into account the impact of water run-off outside of the site.

7.7.21. P168. “The baseline data will be used to assess the potential effects of the Proposed Development on hydrological and hydrogeological resources within a 5km study area. This study area is based on the hydrological and hydrogeological connectivity of water bodies located downstream of the Proposed Development.”

MP need to show flood maps taking into account the 5km study area, currently Greatford is just off their map. Please note the Water Resources Sensitivity table in Appendix 7.6 – this applies to Greatford Cut (a flood plain) and is high.

7.7.28. P169 “As sections of the Site are located within Flood Zone 3a, the FRA will need to demonstrate that the Proposed Development passes the Exception and Sequential tests outlined in the NPS and NPPF. There will be a requirement to raise all electronically sensitive equipment at least 600mm above the highest modelled flood level for the 1 in 100-year (+climate change) event or have a commitment to install flood resilient measures onsite infrastructure.”

As above point 7.7.19 if panels need to be raised, what criteria will they use to assess the use of SuDS?

7.7.29. P169. “The FRA will be produced and will focus on the following elements: √ Assessment of the introduction of new hard-standing areas on the greenfield run-off rates, using Micro Drainage software.” This needs to take into account all the new access tracks and hard-standing bases for all the battery storage on the solar PV site.

7.7.31 P170. “Construction effects” – no mention of impact of compaction of the soil, temporary access tracks etc on water run-off.

“Operational Effects √ Increase in surface water run-off from areas of hard-standing;” - there is no mention of the impact of run-off from the solar panels themselves. Normally rain is dispersed evenly across the ground, when it falls on solar panels up to 3.5m high, there will be a huge concentration of water run-off at the bottom of the panels, leading to water channels being created, and speeding up the flow of water if the ground is unable to absorb it. These effects need to be taken account of.

7.7.39. P172. Issues to be scoped out. “Potential transfer of chemicals to surface water resources during operation”. Given the possibility of contamination from damaged panels or chemical leak from battery fire on the solar PV site, is it wise for this to be scoped out?

### **Agricultural Land Use**

**This is a key determining factor in the decision-making process with the Planning Inspectorate, so ensuring this is scoped, correctly surveyed and assessed, is critical to the outcome of the application.**

7.8.5. P173 “In order to inform the assessment an Agricultural Land Classification survey will be undertaken at the Site. Given the size of the Site the survey will be carried out at a semi-detailed scale. This will involve in the order of 210 auger locations on a regular 200 metre grid across the solar PV Site.”

What is the baseline methodology for determining 210 locations (looks too low), and what guidelines are they using to conduct these surveys?

According to the British Society of Soil Science (BSSS) Proficiency in ALC Survey Grading of land using the ALC system is not straightforward. For individual development sites this normally involves a detailed ALC field survey, according to the MAFF 1988 ALC guidelines. Proficiency in the conduct of an ALC survey requires knowledge and experience of field soil survey and the interpretation of soil, topography and climate data. There are comparatively few experts capable of carrying out ALC to a sufficient professional standard. For this reason, BSSS has published a professional competency document<sup>4</sup> that outlines the qualification, knowledge, skills and experience required to carry out ALC.

7.8.17. P176 “In terms of magnitude of impacts, the loss of more than 50ha of BMV land is considered to be a large/major magnitude, losses of 20-50ha are of moderate/medium magnitude and losses of less than 20ha to be of low magnitude. These thresholds are based on established practice. The 20ha threshold is the trigger point for consultation with Natural England on losses of BMV agricultural land.



Based on an approximate solar PV area of 530Ha minimum, should Natural England be involved now as more than 20Ha (3.7%) is likely to be BMV land. Also, more than 50Ha (10% of the land could be BMV) which is deemed large/major magnitude. Given these statistics it is even more important that the survey work is full, thorough, qualified and wholly independent.

7.8.18. P176. Potential Effects. “The Proposed Development has the potential to affect the agricultural land quality and use of the solar PV Site. The construction process is generally considered unlikely to significantly affect the agricultural land quality or the soil resource”.

This is not the belief of local specialists who see there will be damage to the soil through compaction and drilling, putting down access tracks during the construction period. The view is the soil will not carry the nutrients necessary to return to agricultural production after 40 years. This of course will be hugely affected with how the soil is managed over the 40-year period.

### **Climate Change**

7.10.10. P186. “The effect of the Proposed Development on climate change will be assessed by evaluation of two quantities. Firstly, the potential emissions associated with the construction and operation of the Proposed Development. This will include the construction process and the manufacture and transportation of the components of the Proposed Development, and the carbon dioxide emissions embodied within them.”

This assessment does not include the carbon cost of importing more of our food as a result of the loss of agricultural land production in the UK. It also does not take account of the carbon costs of replacing and recycling panels when they are no longer efficient/redundant – it is known they will not last 40 years.

### **Socio-economic**

7.1.20/21 Assessment of effects. It only mentions on the negative side the loss of agricultural workers, there is also the lost income to all the other businesses in the supply chain associated with agricultural farming. This impact will continue during the operational phase. This needs to be factored in.

7.11.25 P195 “it is considered that the effect on the local tourism economy will not be significant, and it is therefore proposed that this is scoped out of the EIA.” The distances to Stamford and Burghley are closer than 2.3km, as outlined earlier in the report. If you start to change the character and feel for an area it could have a negative impact particularly for Stamford.

7.11.26 P195 “Significant impacts on PROW users are therefore not anticipated and are scoped out of the EIA. A Recreation and Amenity assessment will be undertaken and submitted in support of the DCO Application”

This is too late in the process and needs to be kept in scope. How has Mallard Pass come to this conclusion? The impacts on walkers, cyclists and horse-riders will be significant, with the potential for mental health impacts for those with fewer alternatives. Traversing these PROW with panels and security fencing all around is akin to walking through an industrial plant, removing any sense of enjoyment or well-being. For horses it could prove dangerous, as the tunnel effect on the bridleway will prove very scary, unlike the norm of greenfield land. This absolutely needs to be scoped in to address the strength of public opinion. There is no assessment to show the benefits for the community – whether supporting their local economy or improving the social benefits.

## **8.0 Environmental Topics Scoped Out of the EIA**

### **Heritage**

8.1.13: “Furthermore, mitigation through design (avoidance) can allow any especially sensitive buried archaeological remains (such as human remains) to be safeguarded completely from any disturbance. The desk-based assessment and geophysical surveys will aid in the identification of any such locations. Thus, an assessment of buried archaeological remains can be scoped out of the EIA.”

Given a geophysical survey of the site has been completed, it is asserted that any assessment of buried archaeological remains **cannot** be scoped out of the EIA until such time as the results of the geophysical survey are in the public domain and aspects requiring “mitigation through design” are adequately pinpointed. Given the roman remains findings in field 36, can the geophysical surveys confirm there are no further roman remains at risk from drilling/piling. (Ref.3.1.12).

### **Air Quality**

8.25 P209 “it is considered likely that no exceedances of the annual mean objective will be experienced in the vicinity the Site.” Given Essendine is at the epicentre for all 3 routes, has this been taken into account?

8.28/29 P211 “it is not expected that a specific air quality chapter will be required in the ES.”. Surely a sensitivity analysis should be done to determine if the forecast traffic movements are wrong and considerably higher, will any of the assessment thresholds be breached? This should be explored before taking out of scope.

### **Risk of Major Accidents or Disasters.**

8.4.2. P215 “The EIA Regulations do not include the definition of major accidents and/or disasters. For the purposes of the assessment, the following three definitions and accidents and disasters have been used within the context of the Proposed Development:

1. The Control of Major Accidents Hazard (COMAH) Regulations, 2015, defines a major accident as “an occurrence such as a major emission, fire, or explosion resulting from uncontrolled development, leading to serious danger to human health or the environment (whether immediate or delayed) inside or outside the establishment, an involving one or more dangerous substances”.
2. The International Federation of Red Cross & Red Crescent Societies Disaster and Crises Management Guidance provides a useful definition for disaster, which is “a sudden calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community’s or society’s ability to cope using its own resources. Though often caused by nature, disasters can have human origins.”; and 7863\_EIA\_0001 Mallard Pass EIA Scoping Report
3. The Oxford English Dictionary defines an accident as “an unfortunate incident that happens unexpectedly and unintentionally, typically resulting in damage or injury.”

Are these the right and appropriate definitions – “an unfortunate incident” is not how a battery storage fire and explosion will be perceived if it happens?

8.4.10. P217 “Component and equipment of the Proposed Development will be installed in accordance with the relevant Fire regulations and guidance from the Health and Safety Executive. The operational phase of the Proposed Development would involve routine maintenance and servicing of equipment to ensure the safe operation of equipment. Fire equipment and notices will also be provided onsite for the availability of personnel and would be regularly inspected and serviced in accordance with relevant Fire Regulations. The ES will include details on the measures incorporated into the design to minimise any potential impact of Proposed Development resulting from a fire. As such, a separate ES chapter covering risk from fire accidents is not considered necessary.”

The scale of this battery storage will be unprecedented in the UK and upfront design is critical to ensure the safety for the local communities is the highest priority.

8.4.11. P218 “An outline Battery Safety Management Plan (oBSMP) will be prepared and submitted with the DCO Application. The oBSMP will detail the regulatory guidance reviewed to ensure that all safety concerns

around the BESS element of the Proposed Development are addressed insofar as is **reasonably practicable.**” – would that kind of comment be allowed with a nuclear power station?

This is one of the biggest concerns for residents given the evidence of fire safety events with lithium-ion batteries all over the world. The amount of time allocated in this report is negligible. It shows no understanding or respect to the impacts of such an adverse event. The lethal toxic gases, the uncontrollable fires, the environmental damage require more than just a plan, they require thorough design, and full assessment throughout the planning process and need to be scoped in.

### **Human Health**

8.5.5 P220. Will Mallard Pass clarify there are no cable routes in close proximity to PRoW?

8.5.6. P220 “Due to interactions with human health covered elsewhere within individual topics of the ES, it is not considered necessary to provide a separate Human Health ES chapter.”



There does not seem to be any recognition or assessment of mental health impacts, just physical health. Therefore, should health have been removed totally from the scope?




### **Conclusion**


Table 10.1 on P230 highlights the extent of areas scoped out of the EIA. Given the unprecedented scale of this project, and the lack of full information and understanding at this early stage in the process, we would ask for a cautious approach to be exercised and for areas highlighted in this report to be recommended to be put back into scope.




28.2.22

**Comments From Mallard Pass Action Group**  
**Mallard Pass Solar Farm proposed viewpoints**

Viewpoint	Mallard Pass proposed viewpoint	Revised suggestions by MPAG
1	<p>This viewpoint shows small area of field 29 beyond large mitigation area, set back from the road, so only partially visible. <b>Not the best viewpoint for a montage, should be re-allocated to another area.</b></p>	<p>Turn left of A6121 to Greatford, just down on RHS. Views of 29,30,33, 34,36. <b>Better montage option.</b></p> 
2	<p>This is along the A6121. There is a mitigation area in front of this, and the solar panels will be on a far higher piece of ground. Not clear how far set back the panels will be in field 29 that adjoins field 28.</p> <p><b>Not the best viewpoint for a montage, should be re-allocated to another area.</b></p>	
3	<p>This viewpoint is in a low-lying area out the back of Carlby, the panels heading west are on the other side of the elevated railway line. This viewpoint is irrelevant and should be removed.</p> <p><b>It should not be part of the montage selection.</b></p>	<p>Recommend replacing it at the top of the footpath just outside Essendine, looking east over at fields 28,29,30,33</p> 
4	<p>This point is next to the bridleway and is an obvious choice. However, the viewpoint opposite, still on the same bridleway, is stronger.</p>	<p>Just down the same bridleway a few hundred yards under the power lines. <b>This is a 360 panoramic and should be the montage view</b></p>

			
5	This looks out onto an area of mitigation on to field 39 where there will be no panels and it is not next to a footpath.	Recommend moving this further up the road towards Carlby and positioned next to the footpath sign outside Grange Farm that would provide a relevant viewpoint of the panels across field 36. 	
6	This is on the wrong side of the railway line with no solar PV fields visible.	The north side of the railway, 20 yards along the bridleway adjacent to field 35 provides long distance views of the PV panels. (This pic is a few yards too early as in a dip) 	
7	This is on a footpath which leaves green lane just after it starts on Newstead Lane. The point chosen is only just into the field and the current scrub land at the field edge is so high is blocks the view across to Wood Farm. The panels are to be located on this field.	These 2 viewpoints on this path are far more representative of the views.	

		
8	<p>This point shows clearly the impact of the solar panels when looking across the fields as you pass gateways. Panels will be visible all along the road from Uffington to Essendine though the hedge varies in thickness and height and will afford some screening along parts of the road particularly in summer when in full leaf. This viewpoint is OK.</p>	
9	<p>This viewpoint is restricted with hedgerow which is a feature down Uffington Road. I suggest the viewpoint is taken in an open gateway.</p>	
10	<p>This viewing point is on a footpath which leaves the village of Belmesthorpe off Castle Rise. There is no visibility of the proposed solar farm which is up an incline and on the other side of a fully hedged bridleway. There is no logic for it to be included. <b>This should not be a montage view.</b></p>	No available alternative.
11	<p>This viewpoint is fine.</p>	
12	<p>This viewpoint is located on the B1176 at the point a footpath joins the road between fields 9 and 12. The viewpoint will show clearly the visual impact of the arrays when looking across the fields to Essendine, so relevant for walkers and horse riders. However, it is a low point on the road and does not necessarily give a true perspective of the panels from the</p>	<p>Also suggest these viewpoints at the Drift junction looking east to Essendine across field 9, and NW in field 2.</p>

	<p>higher points of the road when travelling from Ryhall to Little Bytham by vehicle.</p> <p>Could be a montage option.</p> <p>Also suggest the following points opposite.</p>	
<p>13</p>	<p>The hedge is high and dense and so the fields where arrays will be mounted is not very visible at the particular point shown on the byway. It misrepresents the open coppices that flag both sides of the drift and the clear visibility field users will have where the arrays will be mounted. This by-way is very well used by walkers, horse riders, cyclists and a variety of other road users.</p>	<p>Alternative suggestions still adjacent to field 13. Good montage point</p> 
<p>14</p>	<p>This is located at Barbers Hill at the most northerly point of the scheme. However, the location is on a high, flat &amp; straight piece of road which completely misrepresents the true topography of the area – the south facing slope of the field is not evident and the viewpoint does not give a true indication of the visual impact the scheme will have – this is clearly evident just a 100yds or so further south along the B1176 – see opposite</p>	<p>V slightly further south on B1176 looking down the hill and across towards Essendine. A good montage option.</p> 

	<p>More suggestions opposite:</p>	<p>Just south of the crossroads B1176 heading to Ryhall looking east across fields 5&amp;6 &amp; beyond.</p>  <p>Heading north on B1176 to Careby looking across field 4</p>  <p>B1176 crossroads looking across to Essendine to fields 5,6,7,8, 10,11</p>  <p>Heading west out of Carlby over the B1176 crossroad on RHS looking west into field 4.</p>
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## Comments From Rutland County Council

### Mallard Pass Solar Farm proposed viewpoints

Officers of Rutland County Council visited the viewpoints on 4<sup>th</sup> March 2022 and have the following comments to make.

Viewpoint number	LPA Comments
1	Mallard Pass proposed viewpoint is considered acceptable. The alternative suggested by the Mallard Pass Action Group (MPAG) doesn't give the same longer-distance views.
2	This viewpoint gives a good, wide view out across the countryside in this location and should be used to demonstrate the impact of the proposal with and without mitigation.
3	This viewpoint doesn't appear to provide any benefit to understanding of the scheme and should be replaced with a more appropriate alternative – see the following section regarding additional suggested viewpoints.
4	The LPA agrees with the comments of the MPAG but would also recommend a second viewpoint is considered midway between viewpoint 4 and the railway line due to the presence of Carby Church within the wider setting. Views from this area form part of the appreciation of this historic building from the wider area. See the following section regarding additional suggested viewpoints.
5	The viewpoint provides good field of view across the countryside in this location but note that the illustrative layout plan shows the adjacent land as an area of mitigation and enhancement and therefore a viewpoint here may not be the most helpful if the layout remains as per the illustrative plan.
6	Note the comments of the MPAG, however this viewpoint provides significant views of the proposed development to the south and is therefore acceptable in the LPA's opinion. It should be considered to provide views of the development to the north.
7	The LPA considers this viewpoint to be acceptable.
8	The LPA considers this viewpoint to be acceptable.
9	The LPA considers this viewpoint to be acceptable, providing micro siting ensures it is taken from an open gateway – there is an ideal position directly opposite the entrance to the Ryhall 400kV substation.
10	There appears to be no benefit to this viewpoint, as it does not appear to have views of the site.
11	The LPA considers this viewpoint to be acceptable.
12	The LPA concurs with the comments of the MPAG with regard to this viewpoint.
13	Recommend this viewpoint is moved to the west of the site so that it looks east back towards the proposals. More open views across the site are possible from such a location whereas the indicated location is flanked on both sides by tall hedgerows.
14	Agree with the comments of the MPAG. A better viewpoint and location for a 360° montage would be the crossroads of the B1176 Stamford Road with Holywell Road/Witham Road to the south of the proposed viewpoint 14.
The LPA would suggest the following additional viewpoints are considered.	
LPA1	Holywell Road looking southwest across fields 1 and 3.
LPA2	Witham Road to the north of the site looking southwest over fields 7, 5, 8 and 6.

LPA3	Noted above – part way along bridleway BrAW/1/1 between viewpoints 4 and 6. A 360° montage is suggested but of prime importance is the need to capture the impact on the setting of Carlby Church.
LPA4	View from part way along public right of way E169 to ascertain the impact on users of the PROW – around the junction of fields 13, 14, 15 & 16.

Environmental Services  
Central Operations  
Temple Quay House  
2 The Square  
Bristol.  
BS1 6PN

Our Ref: S22/0314  
Your Ref: EN010127

7 March 2021

**SCOPING OPINION REQUEST BY MALLARD PASS SOLAR FARM LIMITED IN RELATION TO AN APPLICATION FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE MALLARD PASS SOLAR PROJECT**

Dear Katherine,

Thank you for your letter dated 7 February 2022 seeking South Kesteven District Council's (SKDC) views and comments on the Scoping Report produced by LDA Design on behalf of Mallard Pass Solar Farm Ltd and the content of the Environmental Statement for the above proposal.

SKDC has reviewed the information contained within the Scoping Report and offers the following comments which we request the Inspectorate considers in preparation of its final Opinion. Also attached are comments from the SKDC's ecological advisor (Appendix A) and archaeological advisor (Appendix B) which should be taken to represent the SKDC's views on those topics. A comprehensive response provided by the Mallard Pass Action Group which has been provided independently to the SKDC's response is included at Appendix C.

The request is considered to comply with the

**Comments on topics scoped into the ES**

Landscape and Visual Effects	<ul style="list-style-type: none"><li>• SKDC agrees this matter should be 'scoped in' and appropriate assessments included as part of the ES.</li><li>• The viewpoint locations have not been agreed with SKDC. SKDC would expect to be involved and agree the final location of these viewpoints prior to the submission of any formal application.</li><li>• The attached comments on the viewpoints provided by the Mallard Pass Action Group should also be taken into consideration when considering potential viewpoints.</li><li>• 7.3.14 – the study area has not yet been agreed with SKDC which should be done before any detailed landscape and visual impact assessment work is carried out. This is likely to be greater than the 2km suggested.</li></ul>
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	<ul style="list-style-type: none"> <li>• No details are provided on the proposed green infrastructure. SKDC would expect details of the green infrastructure to be included in the supporting ES.</li> <li>• The ES must consider battery storage and substation final layout in relation to LVIA</li> <li>• 7.3.27 discusses the reversible nature of the proposal, but a temporary consent is not being proposed. If this is the case then the ES will need to assess the impacts of the development as a permanent feature in the landscape</li> <li>• Residential and recreational amenity should not be scoped out and should form part of the LVIA contained in the ES.</li> </ul>
Ecology and Biodiversity	<ul style="list-style-type: none"> <li>• SKDC agrees this matter should be 'scoped in' and appropriate assessments included as part of the ES.</li> <li>• See detailed comments from Lincolnshire Wildlife Trust.</li> <li>• Statutory designated sites - adverse impacts to site integrity through loss of supporting habitat should be in scope for the construction phase and decommissioning phases in order to account for risks to ecological corridor functionality</li> <li>• Breeding birds (skylark, lapwing and yellow wagtail) – Habitat loss should be within scope for the operational phase</li> </ul>
Access and Highways	<ul style="list-style-type: none"> <li>• SKDC agrees this matter should be 'scoped in' and appropriate assessments included as part of the ES.</li> <li>• It is considered likely to be reasonable to scope out operational road traffic effects, but no access routes have been identified in the Scoping Report to confirm this approach.</li> <li>• It is unclear how decommissioning can be scoped out (paragraph 7.5.61) if construction road traffic effects have been scoped in given the likely same traffic volumes.</li> <li>• 7.3.31 indicates that three potential access routes are being considered. Route 1 is considered to be the preferable route from a highway perspective since this provides the shortest distance to the strategic road network. However, unless the applicant confirms the route prior to submission the ES must consider all proposed routes and any mitigation necessary.</li> </ul>
Noise and Vibration	<ul style="list-style-type: none"> <li>• SKDC agrees this matter should be 'scoped in' and appropriate assessments included as part of the ES.</li> <li>• Noise monitoring of construction traffic routes should be carried out. No monitoring locations on these routes appears to have been included in the plan at Appendix 7.4.</li> <li>• Paragraph 7.6.20 states that dwellings on construction routes will be considered in the assessment but paragraph 7.6.37 notes that construction traffic noise and vibration effects have been scoped out of the assessment. Given the unconfirmed</li> </ul>



	<p>routing strategy and the likely volume of construction traffic it does not appear that sufficient information has been provided to confidently conclude that there would be no significant noise and vibration effects on receptors and this should therefore be scoped into the ES.</p> <ul style="list-style-type: none"> <li>• The baseline noise surveys (paragraph 7.6.6) appear to have been Mallard Pass Solar Farm EIA Scoping Review, Review Tables 33848/A5/Scoping Review Report 4 February 2022 TOPIC Comments undertaken in January, if this was during the Government's Covid Work from Home order which expired on 26th January 2022 then the accuracy of the baseline information would not be considered robust. Additional baseline survey work will therefore be required to accurately reflect an accurate baseline.</li> <li>• Noise from traffic during decommissioning has been scoped out but given that traffic volumes could be similar to during construction, this could also have significant effects and it is considered that this sub-topic should be scoped in.</li> <li>• 7.6.43 engagement with SKDC environmental protection service re. noise assessment methodology welcomed and discussions should be on-going.</li> </ul>
<p>Water Resources and Ground Conditions</p>	<ul style="list-style-type: none"> <li>• SKDC agrees this matter should be 'scoped in' and appropriate assessments included as part of the ES.</li> <li>• South Kesteven District Council should be added to consultees list at paragraph 7.7.40</li> <li>• 7.7.40 Relevant Internal Drainage Boards should be added to list of consultees to agree any stand-off distances to board watercourses</li> </ul>
<p>Agricultural Land Use</p>	<ul style="list-style-type: none"> <li>• SKDC agrees this matter should be 'scoped in' and appropriate assessments included as part of the ES.</li> <li>• Land and Soils in EIA Guide published by IEMA on 17th February 2022 should be considered in the assessment.</li> <li>• The methodology for assessing agricultural land quality should be agreed with SKDC.</li> <li>• Having considered the above scoping opinion SKDC would recommend that the section on Land Use and Agriculture should be amended to include a wider assessment of the cumulative impacts of the development to include other known NSIP developments for solar farms which are proposed in Lincolnshire and Rutland. There are a significant number of projects now proposed and the cumulative impacts of these projects on the best and most versatile agricultural land should be assessed as part of any Environmental Statement. These include sites at Heckington in North Kesteven and Cottam, West Burton, Gate Burton in West</li> </ul>



	<p>Lindsey. these collectively cover an area over 4,000ha the cumulative economic impact and potential effects of these schemes due to the loss of arable agricultural land for low intensity grazing therefore needs to be assessed.</p> <ul style="list-style-type: none"> <li>• Whilst Lincolnshire has a large quantity and high relative proportion of BMV agricultural land, the potential development of 5 substantial NSIP-scaled solar farms (as currently registered with PINS) has the potential to result in a degree of cumulative adverse impact stemming from temporary loss of opportunity for the continued cultivation of potential BMV land across the County. We would therefore request that the Planning Inspectorate give consideration to this issue being scoped in to the Land Use chapter of the ES and that cumulative agricultural land impacts are considered across the registered projects, adhering to ALC Best Practice published by Natural England.</li> </ul>
Glint and Glare	<ul style="list-style-type: none"> <li>• SKDC agrees this matter should be 'scoped in' and appropriate assessments included as part of the ES.</li> <li>• Chapter method is contradictory. The quote from EN3 at paragraph 7.9.8 states that there would be no effects on aviation, however paragraph 7.9.18 includes potential for aviation effects.</li> <li>• The CAA and Ministry of Defence should be added to list of consultees.</li> <li>• The Glint and Glare assessment makes no reference to potential impacts with fixed panels vs tilting panels given that the scheme design yet to be confirmed. The ES should therefore incorporate a full comparison of effects of tilting panels vs fixed panels at the site unless the detailed design has reached a point where the proposed panel type is confirmed.</li> </ul>
Climate Change Impact Assessment	<ul style="list-style-type: none"> <li>• SKDC agrees this matter should be 'scoped in' and appropriate assessments included as part of the ES.</li> <li>• Second Edition of the IEMA GHG in EIA Guide to be issued week commencing 28th February and should be used in the assessment.</li> </ul>
Socio Economics	<ul style="list-style-type: none"> <li>• SKDC considers this matter should be 'scoped in' and appropriate assessments included as part of the ES.</li> <li>• Report is ambiguous as to whether this topic is scoped in or not. Not included in the list at paragraph 7.2.1 but is included at section 7.11 as scoped in.</li> </ul>



## Comments on topics scoped out of the ES

Cultural Heritage	<ul style="list-style-type: none"><li>Insufficient evidence has been provided in the report to justify scoping out effects on archaeology. The site is 900 hectares in area and has not been previously substantially developed. Whilst a search of the HER has been undertaken the Scoping Report acknowledges ongoing geophysical survey work but no detail has been provided in the report to support the claim that there would not be significant effects.</li></ul>
Air Quality	<ul style="list-style-type: none"><li>8.2.8 Dust from lorries during the construction period will be difficult to mitigate and should be scoped into the ES.</li></ul>
Arboriculture	<ul style="list-style-type: none"><li>No comments.</li></ul>
Risks of Major Accidents or Disasters	<ul style="list-style-type: none"><li>It is considered that insufficient information has been provided on the proposed battery storage facility to justify scoping out of accidents and disasters.</li></ul>
Human Health	<ul style="list-style-type: none"><li>No comments.</li></ul>
Waste	<ul style="list-style-type: none"><li>No comments.</li></ul>

In addition to the above comments, it is considered that the following matters should be scoped into the Environmental Statement:

- Inclusion of construction road traffic noise effects;
- Inclusion of further information on the risks of accidents and disasters associated with the battery storage elements of the scheme; and
- Inclusion of an assessment of the effects of the development on archaeology (see detailed comments from Heritage Lincolnshire at appendix B)

Please do not hesitate to contact me should you need clarification on any of the points raised in this response.

Yours sincerely

Phil Jordan  
**Principal Planning Officer**



SOUTH  
KESTEVEN  
DISTRICT  
COUNCIL



## Appendix A – comments from Lincolnshire Wildlife Trust

These comments are in response to the EIA Scoping Report and Technical Appendices (February 2022) and are to be taken in conjunction with Lincolnshire Wildlife Trust's comments sent on 16th December 2021.

The Mallard Pass EIA Scoping Report (February 2022) appears to make a thorough reference to relevant law and policies and outlines an appropriate ES structure and EIA methodology. However, in the time available and in light of resources available I should clarify that the Lincolnshire Wildlife Trust cannot provide a comprehensive appraisal of completeness and legal fitness for purpose of this Scoping Report. If this is required, I strongly recommend that SKDC undertake to hire the consultancy services of an independent ecological consultancy. I would be keen to highlight the observation made in Section 5.5.8. concerning a new section on 'Environmental and Biodiversity Net Gain' in Draft NPS EN-5.

I note that no fewer than 98 ecological site designations are considered within, adjacent to or near to the site boundary. These should be checked with local environmental records centres. It will be important to co-ordinate between the Lincolnshire ERC and the Leicestershire and Rutland ERC in order to ensure that the project is working with a fully up-to-date list and map of designations and access to citations. This has importance with regard to route planning for construction phase traffic with regard to the risk of negative impacts on locally and nationally designated road verges. Generally speaking, all construction traffic should avoid roads with designated verges and should avoid Holywell and all 'Roadside Nature Reserves' (Lincolnshire) and 'Roadside Verge Nature Reserves' (Rutland). Although lorries may be able to remain on surfaced carriageways, increased passing by a range of vehicles could cause significant verge habitat damage, especially during wet ground conditions. With this in mind I have looked at Figures 7.1-7.4 'Construction Access Routes and Vehicular Restrictions' and Routes 1-3 Traffic Data Overviews (pages 197-200 of the Scoping Report pdf). It appears that Routes 2 and 3 avoid roads which have designated verges. Route 1 however may have negative impacts on both Tolethorpe, Ryhall Road Verge LWS and Tolethorpe Mill Verge LWS.

In the Illustrative Layout Fig 3.1 page 55 of the Scoping Report and subsequent amended versions and ultimately in the Landscape and Ecological Management Plan (LEMP) we would look for buffers and 'Potential Mitigation and Enhancement Areas' to be configured in connection with (roughly in priority order):

- designated sites (as shown in Figure 1: Site boundary and location of designated sites maps 1 and 2 Pdf pages 41 and 42 of the Appendices) such as: Ancient Woodland, SSSIs, LWS
- the West Glen channel and associated flood plain and drainage ditches and land at higher risk of flooding shown in Water Resources and Flood Extents Figure 2.5 in the EIA Scoping Report on page 30 of the pdf. These areas could accommodate aquatic, marginal and seasonal wetland features as part of multi-functional drainage systems
- connective habitat corridor potential such as hedgerows and other linear green/blue infrastructure centred on trees with bat potential
- higher value habitat features as identified by the Phase 1 Habitat Survey such as J2.1.1 - Intact hedge - native species-rich; J2.3.1 - Hedge with trees - native





species-rich; A1.1.1 - Broadleaved woodland - semi-natural; B2.2 – Neutral grassland - semi-improved.

We would expect to see higher pre-intervention habitat unit scores in the Biodiversity Metric associated with the above features when a Biodiversity Net Gain feasibility study is undertaken and this should be reflected in consequent recommendations for retention and buffering in an Ecological Impact Assessment and made clear in the Environmental Statement.

In addition, we will be looking for habitat enhancement proposals for less ecologically valuable elements along land parcel boundaries through augmentation of native and locally occurring species and improved habitat connectivity to reduced habitat fragmentation of isolated habitat e.g. ponds and woodland.

The surface water flooding maps for each farm provided in the Ecology Baseline Report (Appendix) can be used to indicate where best permanent and temporary wetland habitat could be created / enhanced / extended much in the same way as multi-functional SUDs (retaining / detaining / attenuating) water run-off. These need not conflict with panel string layout if designed to be mainly linear in form with buffering habitat and graded draw-down zones.

See:

- Appendix 7.5a: Argyll Environmental Report - Braceborough Grange February 2022; Surface flooding risk map page 63 of report (p378 of pdf); Surface Water Flooding (1:200-year rainfall event); AEL-4305-PSF-1022716
- Appendix 7.5b: Argyll Environmental Report - Wood Farm February 2022 Surface flooding risk map; page 45 of report (page 442 of pdf); AEL-4300-LSF-1023627
- Appendix 7.5c: Argyll Environmental Report - Land at Manor Farm February 2022; Flood Risk: Surface Water (1:75-year event) Report Reference: 287311656; Page 42 of report (page 501 of pdf)
- Appendix 7.5d: Argyll Environmental Report - Land at North Lodge Farm February 2022; Flood Risk: Surface Water (1:75-year event); Report Reference: 287321850; p40 of report (page 591 of pdf)

Maps of Environmental Stewardship Scheme agreements may give some indication of where we might expect to find higher scoring pre-intervention habitat unit baselines scores for grassland, hedgerows and field margins.

Agricultural Land Classification (ALC) maps, where they describe lower quality land of e.g. 3b or worse, could provide a basis for assessing opportunity for the perpetuity of habitat that is created / enhanced as a result of this proposed scheme beyond its operational lifespan. We understand that the ALC maps do not differentiate between 3a and 3b, but 3 with e.g. higher flood risk might offer good enough guidance.

As a Wildlife Trust we would not take a position on landscape and visual impact and assessment. With regard to those aspects listed in Section 8 which are proposed to be scoped out of the EIA, LWT would not take a position on air quality, heritage assets,



arboriculture beyond ecological implications, risks for major accidents / disasters, human health, electromagnetic fields or waste.

In line with the Lincolnshire Wildlife Trust's comments sent on 16th December 2021, we contest some elements of the EIA scope proposed with regard to ecology and biodiversity as listed in Table 10.1.

*“Statutory designated sites - adverse impacts to site integrity through loss of supporting habitat”* should be in scope for the construction phase and decommissioning phases in order to account for risks to ecological corridor functionality and therefore structural and functional habitat connectivity. This is however addressed partly and significantly by the scope for bats. The permeability of security fencing for a range of species should also be considered.

*“Breeding birds (skylark, lapwing and yellow wagtail) – Habitat loss”* should be within scope for the operational phase. This is so that ‘skylark plots’ can be entertained as part of enhanced habitat provision for this impacted guild of arable, ground-nesting birds. Arguably, their foraging habitat will stand high potential for enhancement; but nesting habitat will be diminished. Figure 6 of the Ecology Baseline Report in the Scoping Report Appendices showing Maps 1-5 of ‘Breeding bird indicative territory maps’ show 59 Skylark territories and 2 Yellow Wagtail territories. While in an arable context these are not likely to be under optimal management for breeding success, these would nevertheless be displaced and LWT would want to see measures in place to secure territory for these species as part of the proposed panel layout.

Injury or death to various species should be factored into the operational phase if moving parts of tracker arrays are to be included into the design. We would also want to see consultation undertaken from professional ecologists such as the RSPB to develop a reasonable understanding and range of mitigating options if thought necessary for any potential collision risks for birds associated with reflective solar panels. This is due to the currently unclear potential for solar panels to appear like the surface of a water body under some conditions to passage migrant birds.

We would want to see retention of all trees showing bat roost potential as shown in Maps 1 and 2 of Figure 4 of the Ecology Baseline Report in the Scoping Report Appendices (pdf pages 48 and 49). The distribution of these trees should form the basis of a ‘core network’ of bat corridors throughout the site for retention, enhancement and connection. This should include the planting of ‘successor trees’ to secure perpetuity of connectivity and habitat provision. Retention of ivy on trees should be standard practice as should retention of dead wood standing if safe, even as monoliths, and retained if felled in margins.

We note that Figure 5 shows the map of water vole evidence. We strongly recommend that watercourse stretches where water vole evidence is currently present as well as connected favourable habitat lacking field signs should be managed with wide buffers and in a way to maintain a diverse native herbaceous flora with only intermittent shading of the watercourse. I hope these comments are helpful at this stage. The Lincolnshire Wildlife Trust welcomes further related consultation and wishes to be involved in the statutory consultation phase.

## Lincolnshire Wildlife Trust 16 December response

The Lincolnshire Wildlife Trust would like to make some general comments on the Mallard Pass Solar Farm Proposal as part of the Stage One Consultation. We base our response on the summary information provided in the Mallard Pass Solar Farm Stage One Consultation Main Document (Nov 2021), the Community Consultation Leaflet (Nov 2021) and the Illustrative Layout Drawing No. 7863\_000 (Dec 2021). We appreciate that environmental surveys are ongoing and that the Preliminary Environmental Information Report (PEIR) will be made available as part of the statutory Stage Two Community Consultation. For this reason, we can only offer high level guidance at this point in advance of being able to see the detailed ecological assessments that will be forthcoming.

The following comments are informed by BRE (2014) Biodiversity Guidance for Solar Developments. Eds G E Parker and L Green and Natural England Technical Information Note TIN101 © Natural England 2011 First edition 9 September 2011 - Solar parks: maximising environmental benefits. We also would refer readers of these comments to National Policy Statements EN-1, EN-3 and EN-5, NPPF (2021) paragraphs 8c, 174, 180, 182 and the SKDC Local Plan (Jan 2020) Policy EN2: Protecting Biodiversity and Geodiversity.

The Lincolnshire Wildlife Trust acknowledges that you describe your vision as addressing the biodiversity crisis and that it is your aim to “deliver a project that maximises opportunities for nature recovery and minimises environmental impacts, wherever possible.” LWT would refer to the rates of national habitat loss and species decline listed in the State of Nature Reports 2019. It has been estimated that between 1930 and 1983, 97% of wildflower-rich grasslands were lost in England and Wales (Fuller RM (1987)). The conservation of existing and creation of new wildflower meadows is considered to be of national importance (Natural England). Furthermore, Lincolnshire Environmental Records Centre (2018) has recorded that over 900 species of wildlife have not been re-found within the county since 1960 and Lincolnshire as a whole has been losing approximately 1 species of wildflower every 2 years since 1950 ('Our Vanishing Flora' - Plantlife 2012).

Based on the Illustrative Layout Drawing No. 7863\_000 (Dec 2021) and a superficial cross-check with satellite imagery, the large majority of land use within the proposed site boundary would appear to be under arable cultivation and would therefore represent a relatively low baseline ecological value. Under this assumption, we would not challenge the statement made in the Vision that 'solar farms can provide net gains in biodiversity' and we would not contest the possibility that this scheme, as it is described, could 'deliver a project-wide biodiversity net gain' as stated in your Project Design Principles. We would, however, make clear that the delivery of Biodiversity Net Gain would be contingent upon the appropriate treatment of land designated for wildlife habitat value (whether international, national or local, statutory SSSIs or nonstatutory Local Sites) as outlined in SKDC Local Plan (Jan 2020) Policy EN2.

It is essential that the Applicant should in the first instance undertake a desk-based



data search of environmental records and site designations. In this case we would refer them to the Lincolnshire Environmental Records Centre (LERC) hosted by the Greater Lincolnshire Nature Partnership (GLNP). We note that a number of designated sites have been identified in close proximity to or neighbouring the proposed Solar Farm including Ryhall Pasture and Little Warren Verges (Roadside Nature Reserve and Site of Special Scientific Interest), Carlby to Aunby Road Verges (Local Wildlife Site), Braceborough Great Wood (Ancient Woodland and Local Wildlife Site), New Plantation, Braceborough LWS (Ancient Woodland and Local Wildlife Site), Braceborough Little Wood LWS (Ancient Woodland and Local Wildlife Site) and Banthorpe Wood LWS (Local Wildlife Site). We see from the Illustrative Layout that these have been noted but we would wish to see a comprehensive geo-referenced assessment of all nearby site designations, with an assessment of proximity and biodiversity risk posed by the proposed development in each case.

We support that the Concept Plan incorporates 'landscape enhancement opportunities' which include achieving greater habitat connectivity by utilising landscape features such as the East Coast Main Line, the dismantled railway line between Essendine and Ryhall, PRowS and road verges across the project area and the West Glen River corridor.

The Lincolnshire Wildlife Trust would call for a minimum of 10% Biodiversity Net Gain under the requirements of the Environment Act 2021. This is applicable to NSIPs and would need to be determined by UK Habitats Assessment methodology, scored by the latest version of the DEFRA Biodiversity Metric and supported by appropriate postintervention habitat monitoring and management for a minimum 30-year period in full compliance with guidelines in BS 8683 'Process for designing and implementing Biodiversity Net Gain'. Although Biodiversity Net Gain will require further regulations by the Secretary of State before becoming a legal and mandatory requirement (likely to be in late 2023), LWT would assert that schemes of this size with a probable commencement of construction beyond 2023 must reflect this direction of travel and the spirit of Central Government policy. We would insist that for the purposes of assessment, the worst-case scenario would be considered.

Furthermore, based on the limited information provided at this stage, we believe strongly that it would be very reasonable to expect much more than 10% Biodiversity Net Gain to be a direct result on site for this proposed development with additionally beneficial externalities. We would seek to encourage the Local Planning Authority to treat planning applications more favourably if clear and robust evidence were submitted for substantially more than 10% net gain; as we would argue this would be in keeping with the spirit of NPPF paragraph 180d which provides incentive for Biodiversity Net Gain. We would encourage the Applicant to see the strength and business value in delivering substantially more than 10% BNG in order to be seen to be setting a leading example in the sector and in order to position themselves well for green investment and the determination of future DCO applications.

We appreciate that although national and local planning policies constitute material considerations, they do not override National Policy Statements EN-1, EN-3 and EN-5 with regard to the consideration of NSIPs by the Secretary of State. We would



therefore highlight the aim within Draft EN-3 Section 2.50.10 to 'achieve environmental and Biodiversity Net Gain in line with the ambition set out in the 25 Year Environment Plan'.

In its 'Description of Development and Flexibility', the Draft Revised National Policy Statement EN-3 Renewable Energy Infrastructure states that 'some flexibility should be provided in the consent' and that 'In the case of solar farms, it is likely that this flexibility will be needed in relation to the dimensions of the panels and their layout and spacing.' LWT takes the position that apart from boundary feature retention, buffers and enhancements, it is the margins to panel arrays and panel spacing that would dictate the capacity for this scheme to deliver meaningful Biodiversity Net Gain and improved ecological function and connectivity on a landscape scale. We therefore seek assurance that flexibilities built into any consent if given, would be limited by constraints understood to enable practicable and effective species-rich grassland habitat creation and management around and between panels.

With regard to accessibility, Draft EN-3 outlines that 'Applicants will need to consider the suitability of the access routes to the proposed site for both the construction and operation of the solar farm with the former likely to raise more issues.' We highlight this as being especially relevant to the mitigation of any potential damage to Roadside Nature Reserves, SSSIs and Local Wildlife Site designations on road verges within the vicinity of the proposed schemes.

Draft EN-3 section 2.50 outlines considerations for ecology and biodiversity. The involvement of a consultant ecologist and the undertaking of a desk study informed by ecological record data is mentioned only as guidance and not stated to be a requirement. LWT would insist that professional ecological consultancy is employed at every stage with full transparency of methodologies used and guidelines followed; that geo-referenced data searches of historical ecological records are requested from the Lincolnshire Environmental Records Centre and that a strategic approach to mitigating biodiversity risk and maximising opportunity for Biodiversity Net Gain delivery is based on Biodiversity Opportunity Mapping undertaken by the Greater Lincolnshire Nature Partnership (GLNP). We hope to see the Applicant work closely with the GLNP in order to contribute to the delivery of the aims of the Local Nature Recovery Strategy (LNRS) as it is developed. We highlight within the same section of the Draft EN-3 that ecological effects of lighting, suitable permeability of fencing for wildlife and consideration of entrapment and injury by moving parts of tracker arrays should all be part of ecological risk assessment.

We will welcome the opportunity to comment on the Environmental Statement which we anticipate will include an Ecological Impact Assessment; outcomes of a Biodiversity Net Gain feasibility study; Landscape and Ecological Management Plans (LEMPs) and Construction Environmental Management Plans (CEMPs) for each phase. We would insist that periodic ecological monitoring appropriate to each habitat type should be set out in the respective Landscape and Ecological Management Plans. We would request that we are also given the opportunity to review the UK Habitat Assessments and full spreadsheet workings of the Biodiversity Metric which underpin the BNG





analysis and that we also have the opportunity to contribute to the discussion regarding additional ecological enhancement measures. We would also call for early consultation with local authorities, Natural England and LWT with regard to protected and notable species.

Despite the likely lower habitat unit values within the proposed site associated with arable habitat classification, we would nevertheless call for consideration of arable specialist species. We would expect to see a presence of ground nesting birds on most of the site including skylark, yellow wagtail, quail and grey partridge with highest counts for skylark in fields where spring cereals had been sown in that year due to the delayed height of crop plant growth during the breeding season. We see that it is principally these open habitat bird species that stand to be most affected by the installation of solar arrays. Although their foraging habitat could be improved as a result of this proposed development if it incorporates substantial species-rich grassland creation and favourable management, these species would nevertheless be displaced due to lack of predator visibility when selecting nesting sites. We therefore call for optimal ground-nesting habitat of sufficient size or 'skylark plots' to be incorporated into layout plans as mitigation in the form of species-rich grassland and managed in close proximity to more species rich grassland among arrays which would provide additional, higher quality foraging habitat.

Based on the information available, we would expect to learn that the principal existing ecological value (including wildlife corridor functionality) within the site would be constituted by the vegetation, watercourses and drainage features of the land parcel boundaries. We would strongly support any recommendations for native hedgerow and tree retention; hedgerow enhancement with diverse, native and locally occurring species; minimum heights in excess of 2m, minimum widths in excess of 3m; minimum widths of 10m for buffer zone creation and hedgerow management based on trimming once every 3 years on rotation in order to maximise flowering for pollinators and fruit production for winter birds. Boundaries should ideally feature occasional standard trees and more trees or woodland strips on northern boundaries where appropriate. Trees should be allowed to mature and senesce as safety permits. We would recommend that where possible, standing dead wood should be retained, even as monoliths. If felling must be undertaken for safety, this should be minimised and we would call for dead wood to be retained in boundaries as habitat. Successor trees for Ash replacement should be of UK provenance and should be locally occurring species, ideally sourced locally.

We accept that in terms of habitat extent and type, suitable habitat for Otter and Water Vole would be restricted to river corridors, wet ditches and streams present on or adjacent to the proposed sites. Consequently, we expect any mitigations for Water Voles and Otters would relate to protection of river banks and margins from disturbance and damage by buffering and avoidance of pollution events. We will expect these to be built into CEMPs for each phase. As a reasonable approach, we would call for a minimum stand-off of 5m from any ditch and 10m from any larger or natural watercourse and wider buffering where habitat is most suitable or field signs are detected. We would also want to see opportunities taken to enhance wet



boundaries with native herbaceous vegetation and to maintain high light levels in the majority of watercourse sections to maintain and enhance herbaceous riparian and aquatic habitat. We note that the West Glen River runs through and adjacent to the project. We also note that no evidence of otter holts has been identified within the river bank habitat along the River Glen within the project area. We would like to see these results presented with full methodology as part of the PEIR.

We would want to see GCN eDNA surveys undertaken between April and June of all accessible ponds within red line boundaries and land within 250m. We would expect to see Natural England consulted concerning GCN. We accept that the Low Impact Class Licence approach may be valid if sufficient precautions are taken closer to suitable habitats. We acknowledge that a District Licence scheme for GCN mitigation may apply to Lincolnshire during the application process. We would nevertheless stress that best practice should be adhered to at all times and we will look to consult where appropriate if matters progress under mitigation licence or under a District Licence Scheme where applicable. We would recommend the concept of linear pond and seasonal wetland creation as this would be a key opportunity for Biodiversity Net Gain. We note that the onsite ponds were found not to support great crested newts but that a number of offsite ponds, within 250 metres of the project boundary have been identified which will be surveyed in spring 2022. We would like to see these results presented with full methodology as part of the PEIR.

The Lincolnshire Wildlife Trust would stress the importance of limiting seeds and plants to UK native, locally occurring and ideally locally sourced species within the Landscape and Ecological Management Plans. The only exception to this could be bird seed strips. We advocate strongly that the provenance of wildflower seeds and plants should be carefully controlled in order to deliver ecologically functional habitat enhancement and remove the risk of introducing potentially invasive genomes and/or reduced ecological function. We refer to Plantlife's guidance on this and our own. We would be happy to offer guidance on seed sourcing based on providers we have worked with successfully in the past and would recommend that the sourcing of green hay from nearby roadside Local Wildlife Sites and nature reserves with agreement from local landowners and the Lincolnshire Wildlife Trust could form an excellent source of seed to augment appropriate, commercially available seed mixes. We would recommend strongly that species-rich grassland habitat creation and enhancement should have priority away from land parcel margins. We would advocate that the establishment of an extensive network of species-rich meadow within the ongoing site management would help to realise especially significant biodiversity net gain. Species-rich grassland management could incorporate conservation grazing at low stocking levels with primitive or upland breeds of sheep or aftermath grazing following late season cut-and-collect management. The Lincolnshire Wildlife Trust would be keen to provide guidance on ground preparation and establishment of species-rich grassland habitat. We appreciate that shading of panels must be avoided and that, depending upon panel height, this may necessitate a close and more frequent cut along the base of each panel string. However, we believe that this can be undertaken in conjunction with meadow management alongside, thereby enabling less frequent cutting for the remainder of the grassland. Where 'shade-cuts' might be



required for panel arrays, we would highlight this as opportunity to maintain 'flowering lawns' which would incorporate only native species including butterfly foodplants such as Common Sorrel and Common Bird's-foot Trefoil together with other mowing/grazing resistant species such as Red Clover, Selfheal, Lady's Bedstraw, Black Medick and Yarrow while avoiding Perennial Rye-grass and White Clover due to their tendency to be invasive. This would result in extending the flowering season of these strips and maximizing native species-rich grassland area.

It is suggested that areas of existing higher grassland diversity should be placed into more favourable meadow management primarily to enable the regeneration of species-richness and to increase the relative abundance of scarcer grassland specialists. This approach can be coupled with augmentation by introduction of plants (either by plug planting or over-seeding localised scarified patches) with strictly controlled local provenance and appropriate biosecurity.

Where initial species richness is relatively low but phosphate levels in soil are also reasonably low, appropriately sourced species-rich seed mixes and green hay would best be used to establish grassland from prepared bare ground (according to our guidance online). Where phosphate levels are higher, we would advise the use of only 'general purpose' grassland seed mixes. Please note, this does not mean 'amenity' mixes but a reduced diversity of native meadow wildflowers and grasses selected for their robustness and wide ecological tolerances but low competitiveness. These would ensure better success of seed used and ground cover to exclude invasive species. These 'general purpose' mixes would be cheaper to use in bulk. However, we would advocate that after 3-5 years of cutting and removing cuttings, these areas of lower species diversity could then be diversified subsequently through scarification and oversowing and/or green hay strewing as soil conditions become less fertile and consequently more favourable to supporting greater grassland biodiversity. To this end we would recommend the cost-effective and provenance-controlled approach that species rich areas within the sites could be established in the first few years of the scheme which could then be used subsequently as seed and/or green hay resources for the rest of the species-rich grassland creation.

Local Roadside Nature Reserves are important reference sites for local grassland biodiversity. We would advocate that favourable management of these sites could be supported by these proposed schemes and utilised with ecological guidance to provide green hay on rotation for onsite habitat creation and enhancement. Given their existing ecological value and value to the scheme's BNG delivery, we would highlight that the CEMP should make clear and detailed provisions for mitigation of any risk of damage to these roadside sites.

We would strongly support the concept of establishing a habitat mosaic within each land parcel. This would comprise 'structural grassland' managed only on long rotation once every 2-3 years to prevent scrub encroachment and 'scrub mosaic' managed on longer rotation every 5-10 years to maintain low-moderate density scrub set in rough grassland. We see great ecological value in providing this lower-intervention habitat adjacent to species rich grassland that would be managed annually as their





juxtaposition would be complementary – providing niches for full invertebrate lifecycles as well as being beneficial to a wider range of fauna. Robust herbs often listed in ‘hedgerow’ or ‘tussock’ mixes from reputable wildflower seed suppliers could be plug planted into tussocky areas to provide extra ecological resource.

Where south-facing bunds or micro-topography is present or can be created and managed to maintain early successional flora and bare soil this would be especially beneficial for fossorial invertebrates and stress-tolerant plant colonisers especially on freer-draining soils. However, we would recommend avoiding agricultural ‘pollen and nectar strips’ because these often comprise non-native/cultivated species which require regular ground cultivation or graminicide application to maintain.

If Badger setts and/or Badger activity has been identified on or close to any part of the site, LWT would expect to see Natural England consulted on the need for a licence and full measures for Badger mitigation proposed within the PEIR, LEMP(s) and CEMP(s). We would insist that any fencing would not extend below the ground surface where this would conflict with Badger activity and that ‘Badger gates’ would be considered for ensuring site boundary permeability for this species.

We broadly accept the assumption that arrays would generally have a neutral effect on foraging and commuting bats with the potential to offer enhancement where commuting and foraging habitat can be better connected and invertebrate populations can be better supported than in the pre-intervention, arable context. We await detailed results from walk-overs, static detector surveys and inspections of older trees for bat potential and we would expect generous buffering of field boundaries and mitigation of light spill through lighting design. We note the current intention to not undertake targeted species surveys for reptiles and bats but would assert that any concentrations of activity should be surveyed for so that risks, especially during the construction phase, can be mitigated accordingly.

We would be prepared to accept that well-spaced solar arrays with species-rich grassland cover and structural grassland margins would be better habitat for brown hare when compared with arable or intensively grazed pasture with minimal margins. We would be keen to see reasonable evidence of fence line permeability for this species.

We see the retention, buffering, enhancement and connection of existing native woodland as a key element of Biodiversity Net Gain delivery and would insist that where woodland includes ancient woodland indicator species and other ancient woodland characters, whether or not it is designated as ancient woodland, this habitat should be buffered more generously and maintained as such. We would call for measures that would target hedgerow and tree belt creation and enhancement to improve the ecological connectivity of woodland fragments thereby enhancing their ecological function at a landscape scale and the use of structural grassland and scrub mosaic margins to create ‘soft’ woodland edges.

The Lincolnshire Wildlife Trust hopes these comments are helpful at this stage and



welcomes further discussion relating to the points covered. We also look forward to the opportunity to make further comments on the findings of the Preliminary Environmental Information Report (PEIR) and Environmental Statement including an Ecological Impact Assessment and Biodiversity Net Gain analysis as part of the Stage Two Consultation.



SOUTH  
KESTEVEN  
DISTRICT  
COUNCIL

## Appendix B – comments from Heritage Lincolnshire

The Scoping Report proposes that cultural heritage (section 8.1) is scoped out of the EIA, stating that ‘significant effects on the archaeological interest (significance) of any potentially surviving remains onsite is very unlikely.’ .... and ‘the minimal nature of ground disturbing activities, associated with the construction and decommissioning of the Proposed Development, means that significant effects on buried archaeological remains are not anticipated.’

However, the evidence base for this is not presented within the document or appendices although it states that a desk-based assessment has been carried out and identifies the potential for archaeological remains to be present within the site. The report states ‘The potential extent and heritage significance of buried archaeological remains is being investigated by additional desk-based research (including further examination of aerial photographic records) and geophysical survey, which have commenced onsite.’

I am unclear why cultural heritage is scoped out of the EIA when the baseline conditions have yet to be established. Until the potential for, and nature of, archaeological remains present at the site has been assessed it is not possible to determine the likely impact on any buried archaeological deposits.

Archaeological comment:

It is considered that the site offers potential for archaeological remains to be present. The proposals for construction of a solar farm will necessarily have an impact on any buried archaeological remains. Piling, building foundations, cable trenching, access roads, building compounds and construction traffic are all known impacts and the cumulative effect will be significant. Further, the decommissioning phase is likely to have as high, if not greater, impact as the construction phase and will also need to be considered prior to development.

Therefore, further information should be provided in order to make an assessment of the likely impact of the proposals on any buried archaeological remains. This should include an archaeological desk-based assessment, which should be supported by a geophysical survey. The results of this work will inform the scope of a programme of trial trench evaluation to determine the presence, character, date and significance of any archaeological deposits present at the site.

The information in the heritage assessment should consider the potential for impacts on archaeological remains together with impacts on the built heritage and historic landscape. It should provide sufficient evidence to understand the impact of the proposal on the significance of any heritage assets and their settings, sufficient to meet the requirements of the National Planning Policy Framework.



## Appendix C – Comments from Mallard Pass Action Group

Mallard Pass Scoping Request – review by the committee of Mallard Pass Action Group

We have paid particular attention to the objectives of this scoping exercise, notably:

- The potential significant environmental effects which require assessment
- The assessment methodology for each environmental topic proposed to be scoped into the EIA process
- Sources of information
- Issues of perceived concern
- Any other areas which should be addressed in the assessment

Overall our concerns relate to the number of areas that are to be scoped out of the EIA. In some cases there is insufficient early data, and/or an underestimated impact of the issues on receptors. Given the scale of this NSIP project, it is essential nothing is scoped out too early in the process.

1.1.1. P11. States the generation of an anticipated 350MW. Should it not be more definitive and explain the underlying assumptions that arrive at 350MW.

1.2.2 P12 A developer of an NSIP project should be able to demonstrate effective delivery of similar type projects. Windel only states 'projects ranging from 10MW to 320MW'. When previously questioned in the public consultation, they could not confirm any projects actually completed.

2.1.1 P18. Given the MP have clearly identified 54 agricultural fields, the exact size of the development should be clear. It states 'approximately 900Ha'. This report is about assessment methodology based on detailed information.

2.4.2 P20. States: "The Site is predominantly located in Flood Zone 1, which is an area classed as having a low risk from fluvial and tidal flooding (less than 1 in 1,000 annual probability, as indicated by the EA Flood Map for Planning). The Site is predominantly located within an area of very low risk from surface water flooding. Areas of low to high surface water flood risk are located in the northern and western and central areas of the Site, associated with the West Glen River and its tributaries."

Firstly this mentions the site, MP should consider impacts outside of the site as well and draw upon local information from residents which can provide evidence of both pluvial and fluvial flooding. Mallard Pass has acknowledged some flood issues on site and the need to elevate panels, we would challenge this baseline information as not being representative and inclusive.

2.9.3. P25. "The solar PV Site is characterised by a high groundwater vulnerability. The northern and western extent of the solar PV Site is located within Zone II (Outer Protection) Source Protection one (SPZ)

- Figure 2.1 P26. The chart is misleading as the red/orange denote the solar PV site, when in fact those areas also include all the mitigation areas.
- Figure 2.6 P30. Water Resources and Flood extents. This chart does not show the impact on Greatford outside the site, and it only highlights 1 in 20 as worst case scenario. As above 2.4.2 we know there is ongoing flooding in Greatford and the bottom of Essendine hill on a regular basis.



3.1.8 P33 Tracker panels could cause different levels and direction of glint and glare depending on time of day. Scoping document should include this point.

- Plate 1 and Plate 2 images of panels – can Mallard Pass ensure the pictures are representative of the panel dimensions given - they look a lot lower, especially when you consider you need to add the elevation off the ground to the panel dimensions.

3.1.12. P36 “The frames upon which the solar PV panels will be mounted will be pile driven or screw mounted into the ground to a typical depth of approximately 1.5m, subject to ground conditions. The option to install concrete blocks known as “shoes” may also be considered, avoiding the need for driven and screw anchored installation, therefore minimising ground disturbance.” This decision is key and there will be significant ground disturbance with pile driven or screw mounted frames, so this worst case scenario must be reflected on the impacts to soil compaction increasing flood risk to bio-diversity disturbance. With the recent find of the Roman mosaic in Rutland, and the finding in 1961 of a Roman grave with human remains within the Mallard Pass site outside Braceborough, the human remains of which are held by the University of Cambridge, it is highly likely that further archaeologically significant remains will be on site. These are very likely to be disturbed by the proposed piles.

3.1.14. P36. “There are two options for inverters.” MP need to clearly state the maximum adverse effects of their choice, but importantly should be clear why there is uncertainty. Ref EN-1 2.49.17

3.1.18. P37. “The footprint of the transformers will typically be 12.5m x 2.5m and 3m in height. The configuration of equipment will depend on the iterative design process and influenced by technical as environmental factors.” As above they should specify why there is uncertainty and maximum impact scenario of a design.

3.1.21. P37 “The configuration of equipment will depend on the iterative design process as influenced by technical and environmental factors.” As above, too vague.

3.1.29. P40 “A fence will enclose the operational area of the Proposed Development. The fence is likely to be a ‘deer fence’ (wooden or metal) and approximately 2m in height. Pole mounted internal facing closed circuit television (CCTV) systems installed at a height of up to 3.5m”

What is their rationale for 2m high deer fencing, it is too low and the deer will try and jump it and some will be injured. Why is the CCTV so high?

“Clearances above ground, or the inclusion of mammal gates will be included permit the passage of wildlife”. Need more detail on clearance or gates and exact wildlife expected to go through.

3.1.30. P41 “For security requirements, operational lighting would include Passive Infra-red Detector (PID) systems which would be installed around the perimeter of the Proposed Development.” There is no consideration for the impact on wildlife, particularly light-sensitive animals and how night-time lighting would affect their normal habitat. How sensitive will the PID be, what animals could trigger it and affect others, how long would it stay on?

3.1.31. P41 “The lighting of the primary substation would be in accordance with Health and Safety requirements, particularly around any emergency exits where there would



be lighting, similar to street lighting that operates from dusk. Otherwise there would be low level lighting on specific operational units that would again operate from dusk. All lighting would seek to limit any impact on sensitive receptors.”

It needs to assess the sensitive receptors and how they will be affected and whether this has a negative impact on their habitat.

### 3.1.37 P43 Battery Energy Storage System.

Incredibly these have not been included in the section on Risk of Major Accidents and/or Disasters. Indeed Risk of Major Accidents and/or Disasters has been “scoped out” .The type of battery has not been specified - it is highly likely that Lithium-ion batteries will be used.

Lithium-ion batteries can and have failed leading to electrochemical reactions. These reactions do not require oxygen and can spread rapidly giving rise to “thermal runaways.” Normally, and incorrectly referred to as a fire. The only method of dealing with “thermal runaways” is cooling with large amounts of water until the reaction ceases. The electrochemical reaction emits toxic gases including hydrogen fluoride. Explosive gases are then emitted which can caused large explosions. There are numerous instances all over the world of serious battery fires and toxic explosions.

Scoping should include design of battery containers to prevent electrochemical reactions, detection, suppression and action to be taken to cool the reaction with sufficient quantities of water. Batteries were included in the Sunnica Energy Farm Environment Impact Assessment Scoping Report and in the Cleve Hill Solar Park Environmental assessment, so there is a precedent for it to be included in the scoping report for Mallard Pass.

Table 3.1: P44 “Minimum Offsets to Landscape and Ecological Features and Designations” table. Are these just statutory minimums adopted? Would it be better to also show a maximum as these offsets do not demonstrate full acknowledgement of the importance for wider bio-diversity gains. It shows little sensitivity to many of the receptors.

3.2.3. “The existing Public Rights of Way (ProW) that cross the Site will be retained and incorporated within multifunctional green corridors. Subject to the construction phasing and methodology there may be a requirement to temporarily divert a public right of way during the construction phase, the details of which will be sought to be agreed with the relevant key stakeholders, with an appropriate temporary alternative provided.”

There would need to be a clear risk assessment of diverting or removing a PRoW during construction, understanding the consequent behavior of the walker, horse rider or cyclist. This needs to be clearly scoped due to safety and well-being issues.

3.2.4 P45 “Potential areas for mitigation and enhancement as identified on Figure 3.1 will also provide areas for green infrastructure and potentially be used to deliver a 10% net gain in biodiversity”.

What does “potentially be used” suggest – further clarity required. If not the bio-diversity gain, then what? Bio-diversity gains need to be quantified and qualified and over what time period. It is not a pure volume metric, it has to be determined through its appropriateness to each habitat and should be measured on a quality index. Every mitigation area will have different needs. It will need to be proven how a bio-diversity gain is maintained through careful management. Further clarity on all this methodology is required.





3.4.1 P46. Construction. Due to start in 2026. Other published Mallard Pass documents say 2024. Can they clarify.

3.4.5 P48. AIL loads. Mallard Pass identified the potential need for temporary localised road widening, there is no mention of assessing the likely impact on bio-diversity and other receptors. The road in question off the A1 between Great Casterton and Ryhall is very windy and is bounded by hedgerow. Equally there are limited options between Ryhall and Essendine.

3.4.8 P48 “it is anticipated that during the peak construction period, there could be 30 Heavy Goods Vehicles (HGV) deliveries per day, which equates to 60 two-way movements”. Looking at other solar farm NSIPs, like Sunnica and Cleve Hill, these estimates look low which will have a knock-on effect of all the assumptions made about traffic impacts, noise impacts and air pollution impacts. There should be greater clarity on the assumptions underpinning these numbers.

3.4.9. P49 “Temporary Construction Compound. During the construction phase, a primary construction compound is expected to be located onsite with one or more temporary secondary construction compound(s) provided at different locations throughout the solar PV Site, as well as temporary roadways, to facilitate access to all parts of the solar PV Site. The details of which (including location, scale and duration) will be set out and described within the ES”. This is fundamental to the whole traffic plan, how can assumptions be made about traffic loads and routing without stating where these temporary compounds will be. More information is required upfront as they may be many significant impacts.

3.4.10 P49 Construction Reinstatement and Habitat Creation . “A programme of construction reinstatement and habitat creation will commence during the construction phase”. The underlying grass should be established well before (at least 2 years) construction starts so as to give some resilience to the soil being run on and compacted during construction, established grass will recover far more quickly and provide more protection from flooding and sediment loss than grass established during or after construction. There is no indication of these considerations in the report. Also the plan should consider ground conditions and work should not be undertaken on wet soils, as it will create long term compaction leading to poor water infiltration and increased flood and sediment loss.

### 3.5. Operation

3.5.1. P50 “The operational life of the Proposed Development is not proposed to be specified in the application and the Applicant is not seeking a time limited consent.”

Is it realistic to assume the life of a solar farm is unlimited. Surely there will be a time limit to the technology as newer more efficient technologies come on board. Equally there will be a life span of the components. They will need to be replaced every 25 years, impacting the receptors during the operational phase. If any part of the site is deemed non-operational, will it be automatically decommissioned?

The land may need to be returned to some other function deemed more important at a future date, should the planning lifespan be unlimited?



3.5.3.P50 “The land underneath and around the panels could be managed through a combination of sheep grazing and/or hay/silage production in order to maintain the field vegetation during the operational phase of the Proposed Development”.

“Could” is very vague. The method of management here is key to ensuring the right biodiversity is maintained and flood risk is fully mitigated by reducing unnecessary compaction. There seems little acknowledgment of needing a clear assessment of pasture management, noting all key receptors. Have they fully explored the options?

3.7.3 P53 “A series of Design Principles will be developed for the Proposed Development. The Design Principles for the Proposed Development will align with the core purposes and ambitions of the ‘Design Principles for National Infrastructure’ which are Climate, People, Places and Value.”

“Principles should act as reminders to the delivery organisation, a steer in the right direction, and a means of restoring focus to the big picture...Design Principles should be a point of departure, setting out a common understanding [of] the issues to be addressed.” (Developing Design Principles for National Infrastructure (NIC, 2018)).”

Taking Value as an example:

- Provide wider economic and supply chain benefits, and a positive legacy for the communities in and around Mallard Pass Solar Farm;
- Respect the wider landscape and the intrinsic value of the countryside and natural environment;
- Respect and respond to features of heritage value.

Taking People as an example:

- Engage openly and transparently with local communities, stakeholders and neighbours, making use of local knowledge to improve our project;  Consider feedback carefully and engage and respond meaningfully;
- Behave as a considerate neighbour through both construction and operation;
- Respect public amenity.

What method and process will they use to assess the above are delivered?

4.1.2. P57 “Consultation alongside the EIA process is critical to the development of a comprehensive and proportionate ES. The views of statutory and non statutory consultees are important to ensure that the EIA from the outset focuses on the environmental studies and to identify specific issues where significant environmental effects are likely, and where further investigation is required”.

Please check Mallard Pass’s statutory and non-statutory lists. They have some errors and inconsistencies in relation to cross county (Lincs & Rutland) coverage with certain organisations.

4.2.2. P58 “All responses received during consultation are being carefully considered and taken into account in the development of the Proposed Development and a consultation summary report has been released at the same time as this EIA Scoping Request.”

The Scoping request was 7th Feb, the consultation summary report booklet was received in the post 24-25th February.

5.4.7. P63 “Paragraph 4.2.2 of the NPS states that: “To consider the potential effects, including benefits, of a proposal for a project, the IPC [now PINS] will find it helpful if the applicant sets out information on the likely significant social and economic effects of the development, and shows how any likely significant negative effects would be avoided or mitigated.





This information could include matters such as employment, equality, community cohesion and well-being.”

How will they demonstrate community cohesion and well-being, what methodology will they use?

5.5.5. P67 Section 2.48 of the Draft NPS EN-3 sets out key influences that developers should consider when selecting sites for solar development” eg. Proximity of a site to dwellings – why is there no minimum agreed buffer in their offsets list?

5.5.8 P67 “Draft NPS EN-5 includes a new section on ‘Environmental and Biodiversity Net Gain’ at Section 2.8, which states that when planning and evaluating a projects contribution to environmental and biodiversity net gain, it will be important, for both the Applicant and examining Authority, to recognise that “the linear nature of electricity networks infrastructure allows excellent opportunities to: i) reconnect important habitats via green corridors, biodiversity stepping zones, and re-establishment of appropriate hedgerows; and/or ii) connect people to the environment, for instance via footpaths and cycleways constructed in tandem with biodiversity enhancements.”

Please request clarity on how these will be delivered.

5.7.7. P71 “Policy RE1 ‘Renewable Energy Generation’ of the SKDC Local Plan states that proposals for renewable energy generation will be supported subject to meeting the criteria outlined in Appendix 3 ‘Renewable Energy’ of the Local Plan and provided that:

- The proposal does not negatively impact the district’s agricultural asset;
- The proposal can demonstrate the support of affected local communities;
- The proposal includes details of the transmission of power produces;
- The proposal details that all apparatus related to renewable energy production will be removed from the site when power production ceases;
- That the proposal complies with any other relevant Local Plan policies and national planning policy.”

It is critical this underpins SKDC’s assessment of Mallard Pass’s proposed scheme.

6.3.1. P74 “Whilst every ES should provide a full factual description of the development, the emphasis of Schedule 4 (of the EIA Regulations) is on the "significant" environmental effects to which a development is likely to give rise.”

Emphasis does not mean to the preclusion of other impacts. How significant is evaluated can be differently interpreted.

6.5.3. P75 “The ‘future baseline’ scenario will describe the changes from the baseline scenario as far as natural changes can be established, although it is noted without the Proposed Development that the solar PV Site would continue to be intensively managed for agricultural purposes.” The baseline should consider likely forthcoming changes as landowners diversify eg. the and is used for bio-energy fuels, re-wilding.etc

6.5.19.P80 “Cumulative effects with other schemes will be assessed as part of the EIA process.”

The other schemes need to be identified first before any areas are scoped out – this is not obvious in the recommendations of this report. The scheme might not be solar eg. traffic impacts for new housing, quarry, water pipeline and other solar farms in the area.

6.5.27. P81 “Mitigation measures are developed as part of an iterative process and therefore will be developed throughout the EIA process in response to the findings of the initial assessments.”



How can so many areas in this report be scoped out if a number of mitigation measures are going to be iterative?

6.5.30. P83 “Our approach to EIA is not to undertake an assessment of environmental effects where primary or tertiary mitigation measures are sufficient to avoid a likely significant effect occurring. This approach allows the ES to be focussed solely on the likely significant environmental effects and not theoretical significant effects that will not materialise as a result of the design or standard construction practices.”

Is this wholly valid?

6.5.35. P84. Regulation 14(2)(d) of the EIA Regulations also requires that the ES should include: "A description of the reasonable alternatives studies by the applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment..."

This is not apparent in any documentation so far. Can this be reviewed.

7.3.2 P89 “A number of viewpoints have been identified from within and around the Site from publicly accessible locations to understand the nature of existing views towards and within the Site to inform the assessment. PLESSE SEE SEPARATE “viewpoints.doc” which has reviewed all the proposed viewpoints and the choice of locations for photomontages. As locals we are best equipped to understand the viewpoints for both transient and amenity users.

7.3.3 P90.”However, the gently undulating terrain combined with woodland stands, vegetated field boundaries and roadsides act to provide a wooded backdrop to many views and, therefore, screening the Site from further afield, limiting distant views from outside of the Site.”

This baseline assessment is not the case for a large proportion of the site which has open views. These statements are misleading.

7.3.15. P95 “The study area includes the settlements of Essendine, Ryhall, Belmesthorpe, and fringes of Stamford, scattered properties as well as recreational routes and PRow (footpaths, bridleways etc.) and local roads.”The viewpoints cover a wider area than listed including the outskirts of Carlby, Braceborough, Aunby, Pickworth etc.

7.3.17 p95 Grade II\* Burley House RPG (approximately 1.5km south), (considered as part of landscape value); - should be Burghley House – error repeated throughout.

7.3.20. P96 A preliminary assessment from desk-study and fieldwork indicates that potential landscape character and visual effects would likely be limited to the solar PV Site and its local context up to approximately 500m east and south, and 1km west and 2km north. Areas at greater distances from the Site in these respective directions are unlikely to experience any notable or perceptible change to their prevailing characteristics, owing to the limited intervisibility of the Proposed Development as a result of intervening vegetation, existing built development and landform.

This is a vague statement and needs to be backed up with robust data.

7.3.21. P97. “The representative viewpoints have been selected from publicly accessible locations and generally where the greatest potential effects are anticipated to be experienced. The viewpoint locations represent a wide range of receptors, providing a 'sample' of the potential effects from the locality, with locations purposefully selected to illustrate the range of visual effects; or to specifically ensure the representation of a particularly sensitive receptor. ” Assessment of viewpoints covered in separate ‘viewpoints.doc’.



7.3.22 P97 “we propose to undertake rendered photomontages for years 1 and 15 of the Proposed Development from Viewpoints 1, 2, 3, 10 and 11 to demonstrate the views” Assessment covered in separate ‘viewpoints.doc’. Most of the photomontages selected by Mallard Pass do not give a representative view of the solar panels.

7.3.27 P91 “The reversible nature of the Proposed Development means that the landscape can be returned to its former agricultural use, should it be decommissioned”.

This makes a huge assumption that the soil will be capable of returning to agricultural farming. What evidence is there to underpin this assumption?

7.3.37. P104 “Early and continued development of the design has identified potentially affected settlement fringes and residential properties and resultantly, the proposed built solar development footprint has been set back considerably from these boundaries (e.g. around Essendine), providing a sufficient buffer between these receptors and Proposed Development, to avoid the potential risk of 'overwhelming' or 'over-bearing' visual effects to residential properties. As such, residential amenity will not be assessed within this LVIA and is scoped out of the EIA. A Residential Visual Amenity Assessment will be undertaken and submitted as part as a standalone report as part of the DCO application.”

Given the level of feedback to the first consultation it is evident that residents feel their visual amenity is still heavily affected. Whether they live next to the PV site or close to it, in their day to day life the visual impact is significant. The level of detail on mitigation so far does not alleviate the visual concerns, so this should not be scoped out at the next stage.

## Ecology

7.4.7. P106 “The details of the surveys carried out and the baseline conditions identified are set out in the Ecological Baseline report provided at Appendix 7.2”

There are concerns about the timing, range and extent of some of these surveys not being sufficiently robust to provide an accurate assessment of wildlife present. Eg.

- Great crested eDNA should be done between mid April and end June. They took samples on 29 April, which is within the timing, but is still a bit early. Evidence of GCN in Braceborough shows they appear in May.
- Phase 1 habitat survey - end of March and end April is quite early, especially for many flowering plants.
- Wintering birds - should be monthly in Winter (Dec-Mar). Surveys only undertaken in Nov and Dec, so inadequate. No detail on weather conditions on the visits which could affect the result.
- Bats should be surveyed May - Sept, but they didn't survey for them explicitly.
- Other protected species surveys Appendix 2.30: Surveys for foraging and commuting bats, roosting bats, hazel dormouse, reptiles, invertebrates and plants (detailed botanical survey) were not undertaken, despite some habitats on Site being suitable for these species.

7.4.23 P110 “All the hedgerows on Site are considered to meet the description of the Hedgerows HPI”.

Given hedgerows are an HPI, the solar PV should be far more sensitively positioned to enable the best bio-diversity to develop. What basis has been used to set the margins?

7.4.25 P110 “The west Glen river has the potential to meet the description of the Rivers HPI (Maddock, 2011) based on the presence of aquatic species and water quality and hydrological parameters, although this was not assessed in detail.”



Should this not be further assessed given the likelihood of it being an HPI?

7.4.49.P116 “No records of polecat *Mustela putorius* were returned by the LRC or LRERC but this species is reportedly present on the western edge of the Site along the Drift (information supplied by Tom Tew of Naturespace). This species is an SPI.”

Polecat has been seen near Banthorpe lodge. “ Further investigation required.

7.4.76. P123. Designated sites: “ however, accidental damage and other direct or indirect effects may occur to the the Ryhall Pasture and Little Warren Verges SSSI and Tolethorpe Road Verges SSSI, adjacent to the Site. Accidental damage will be avoided by implementing appropriate control measures during the construction stage (tertiary mitigation).”

Due to the nature of the Proposed Development, no impacts to the SSSIs are likely to occur as a result of noise or air pollution.”

Is this assumption valid? There will be pollution from the considerable amount of lorries using a very narrow road not just for the new battery storage facility but for access to the PV areas on that side of the site. Also the proposed mitigation of fencing may not be at all viable as roads are not wide enough already. The verges need to be protected and the fencing process in itself could cause damage.

7.4.77 P 123 “Potential adverse impacts to the integrity of statutory designated sites through loss of supporting habitat is scoped out of the EIA for all phases”.

That is a contradiction to the issues previously highlighted and should not be scoped out.

7.4.89. P127 “During the operational phase it is unlikely that any impact would arise on badgers and therefore is scoped out of the EI”.

There needs to be more survey work to understand the badger behaviour during operation and this should not be scoped out. Experience has shown they create new setts and move around, farmers are constantly having to be careful when using machinery. There have been issues recently close to the site, of badgers digging next to the gas pipeline. There were no surveys in the woodland, therefore limited picture of their habitats.

7.4.95. P128 “No impacts to hazel dormouse during the operational phase are likely to occur.” These are therefore scoped out of the EIA.”

Hazel dormice have been seen close to the site, should they be scoped out?

7.4.98. P129 Other mammals P128 “Due to the nature of the Proposed Development, no impacts are likely to arise during the operational phase. These are therefore scoped out of the EIA.”

The impact on brown hares and their behaviour needs to be assessed. Will the 30x30 gates provide sufficient access to the PV area or will there be significant injury/death due to fencing next to roads?

7.4.103 P130 “Therefore, impacts to birds during the operational phase of the Proposed Development is scoped out of the EIA.”

Further review needs to be done on the impact of ground nesting birds. ie. what kind of ground cover do different ground nesting birds require to ensure a safe undisturbed habitat. What kinds of maintenance activity (sheep grazing, mowing) will disturb that habitat?



7.4.107. P131 Amphibians “The Site supports few terrestrial habitats with the potential to support amphibians and these are proposed to be retained. All ponds are also proposed to be retained and none within the Site, or adjacent to it, were found to support GCN, though common toad may be present.”

There are GCN in Braceborough and therefore likely to be in other ponds on the site, the survey was conducted at the wrong time to identify their presence, further investigation is required.

7.4.111 P132 Invertebrates. “Operational impacts to invertebrates are scoped out of the EIA.” There is insufficient data available, no survey work was conducted. There needs to be a better understanding as the compaction impacts on the soil and how the changes from agriculture to solar PV land affects their habitat.

7.4.115. P132 “During the operational phase of the Proposed Development, no impacts to protected species are likely to occur as:

- The lighting scheme will be designed to avoid artificial lighting on linear features (including hedgerows and water courses), woodland and other retained or created habitats. This will avoid adverse effects on bats, dormice, otter, water vole, amphibians, birds and other SPIs.
- Onsite operational traffic will be minimal and limited to maintenance vehicle movements at very low intensity, with a negligible risk of accidentally injuring or killing any protected or notable species such as wild mammals, amphibians, reptiles or birds.
- No regular presence or work is envisaged onsite leading to disturbance of retained or created habitats.

The above is an assumption and a statement and not backed with clear evidence or assessment. They cannot define the impacts clearly as there is no information on the type of management activities in operation and the different impacts from each activity. Mowing under panels is different to grazing sheep to window-cleaning the panels to using machinery to take haylage - all have different impacts.

7.4.116. Consultation. P133 “The consultation process to be undertaken will involve consultation with the Ecology Officers for Leicestershire, Rutland and Lincolnshire County Councils. Non-statutory consultees such as the Wildlife Trusts will also be approached. These stakeholders will be provided with the summary of the baseline of ecological conditions, the general proposals and the principals which will be used for the detailed design of the Proposed Development.”

With so many areas scoped out of the operational EIAs, and only preliminary data and survey work so far, how can the stakeholders receive an informed baseline of information?

A report from Natural England: Evidence review of the impact of solar farms on birds, bats and general ecology (NEER012) 2017:

“When considering site selection for utility scale solar developments it is generally agreed that protected areas should be avoided. This is reflected in the scientific literature where modelling approaches include many factors such as economic considerations and visual impact but also often avoid protected areas such as SPAs. This is echoed by organisations such as Natural England and the RSPB that recommend that solar PV developments should not be built on or near protected areas. As sensitive species and habitats are not necessarily restricted to the geographical boundaries of protected areas, it is imperative that research is undertaken





into the potential interactions between solar PV arrays and biodiversity especially sensitive habitats and species.”

“...concerns have been raised that solar PV developments have the potential to negatively impact a broad range of taxa including birds, bats, mammals, insects and plants. In light of this, it is highly recommended that research is undertaken into the ecological impacts of solar PV arrays across a broad range of taxa at multiple geographical scales.”

Given these conclusions, it is too early in the process to suggest that so many areas are scoped out of the EIA.

#### Highways

7.5.39/40. P143. “The IEMA Guidelines for the Environmental Assessment of Road Traffic identifies two broad rules-of-thumb which could be used as a screening process to determine the scale and extent of assessment. These rules are summarised as follows

- Rule 1 – include highway links where traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%).
- Rule 2 – include any other specifically sensitive areas where traffic flows have increased by 10% or more.

Any links within the study area that fall below these thresholds will be scoped out of the assessment, unless specifically requested to be incorporated by key stakeholders or the local Highway Authorities.” The fundamental question is whether the vehicles movements have been accurately forecast. This affects all associated scoping assumptions. If you refer to Sunnica’s CTMP

[https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010106/EN010106-001865-SEF\\_ES\\_6.2\\_Appendix\\_13C\\_Framework%20Construction%20Traffic%20Management%20Plan%20and%20Travel%20Plan.pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010106/EN010106-001865-SEF_ES_6.2_Appendix_13C_Framework%20Construction%20Traffic%20Management%20Plan%20and%20Travel%20Plan.pdf), you will see their level of vehicle movements for a 2400 solar PV area. Mallard Pass is disproportionately low.

7.5.42. P144 Sensitive receptors.

- Route 1: should list other drivers at this critical Great Casterton T-junction after having come off the A1; users of the villages of Ryhall & Essendine.
- Route 2. There are 2 primary schools not listed in Uffington; users of the villages of Tallington and Uffington; users of the town of Stamford.

All of these are sensitive receptors. Aside from noise, pollution, safety is a major consideration.

7.5.44. P145 “Potential Effects The potential effects to be assessed during the construction phase of the Proposed Development on those links that exceed the thresholds set out at paragraph 7.5.39 are as follows:

- Severance;
- Driver Delay;
- Pedestrian Delay;
- Pedestrian and Cyclist Amenity;
- Fear and Intimidation;
- Accidents and Road Safety;
- Hazardous Loads.”

Is The IEMA the only baseline methodology for assessing these impacts? An increase in certain traffic levels may not create a linear impact on some of the affects listed above. There also needs to be some assessment which is not purely quantitative and linear, but has a qualitative and local knowledge inputs. The methodology seems very unrepresentative of the reality that would be experienced if the impact was deemed medium for example.



7.5.56. P148 Hazardous or Dangerous Loads. This is scoped out of the assessment. There are hazards along all 3 routes of different descriptions. There is high potential for collision with other vehicles with articulated transport in particular due to narrow or windy roads, hills – already known accident hotspots. Given the sensitive nature of some of the loads – toxic substance contained within the solar panels, batteries etc, it seems very unwise to scope this out of the EIA..

7.5.59. P149 “it is considered that the significance of the environmental effects of the operational phase of the Proposed Development would be negligible with respect to access and highways and therefore a detailed assessment of the operational phase of the Proposed Development is proposed to be scoped out of the EIA.”

Given it is not clear what kind of management activities will take place, can it be clarified what has been used as a worst case scenario to underpin the vehicle movements and scope this out?

7.6. P151 Noise and Vibration. Baseline conditions. The list is not complete, it should include the following: 1 Grange Farm Cottage, 2 Grange Farm Cottage; Grange Farm; West Barn Cottage, Lodge Cottage, Braceborough Lodge Farm

7.6.10. P153. The NPPF also notes that tranquil areas which have remained relatively undisturbed by noise and which are prized for their recreational and amenity value should be identified and protected.

7.6.22 Desk and field study. Appendix 7.4 only highlights the locations, yet the data is only going to be provided at the ES. Given how critical this is to residents, they would want to see something in the PEIR for the public consultation in the spring. The whole PV site plan could change depending on the buffer they allow for nearby properties which could be impacted by these results. The test frequency appears very limited in 7.6.23, will it provide a representative baseline? Will any allowance be made for the impact of wind direction and to extend the 250m boundary and factor it into the noise level range (high wind, low wind etc)

7.6.31. P158. “Some construction activities, such as piling operations, drilling or vibratory rolling techniques, can generate vibration levels in close proximity to their use (less than 50m typically)”.

If proximity to any residential areas is less than 50m, there should be an assessment of the wider impacts on those properties ie. not just noise, dust etc, but importantly if older properties have no foundations what could be the impact of those vibrations. Clarity upfront on residential buffers/margins to proximity of solar PV could resolve many questions/concerns.

7.6.36. P160. “Primary mitigation will first involve adjusting the design of the Proposed Development to maximise (where possible) the distance from areas including noise-generating plant from noise-sensitive receptors. The detailed design of the Proposed Development, including final plant locations and selections, can be controlled through a requirement of the DCO that would establish suitable noise limits at the boundary of the Site”.

Would it not be more helpful if Mallard Pass at the earlier stages set their noise limits and adjusted their plan accordingly, rather than it being a requirement of the DCO? They could share their mitigation measures earlier in the process.

7.6.37 P “Noise impacts from construction traffic is therefore scoped out of the EIA”.

This assumes the baseline for vehicle movements is correct which we don’t believe it is – ref 6.6.37.





## Water Resources and Ground Conditions 7.7

7.7.2. “A desk-based survey was undertaken in December 2021 to understand the baseline conditions for water resources and ground conditions at the Site.” Whilst desk-based work is always a starting point, there seems to be no further assessment based on local knowledge and other available information. The report has been produced by Argyll Environmental in Brighton and contains a vast amount of data, site diagrams, flood risk areas, wildlife info, etc, gathered from the EA, Natural England, and other sources, but Argyll themselves point out this report on its own is not sufficient.

7.7.5. P162. “An initial baseline study shows that elements of the Proposed Development north of Essendine village and south of Wood Farm lie within groundwater Source Protection Zones (SPZ) 1 and 2 and outwith of the River Welland catchment Surface Water Safeguard Zone”. Given this information it will be critical to avoid any water contamination from damaged solar panels and/or on-site battery storage faults (Fires) and mitigation needs to be clearly identified.

7.7.6 P162. This has “ 'high' Impact Risk Zone associated with the SSSI at Ryhall Pasture and Little Warren Verges”.

As above there needs to be clear mitigation or re-design to avoid any contamination issues.

7.7.12. P164. “A Site walkover will be undertaken to verify the location and nature of watercourses and waterbodies within the study area likely to be affected by the Proposed Development. The Site walkover will augment the desk study.”

Depending on when the site walkover is done will significantly impact the conclusions reached. 2021/22 has been very dry. To supplement the desk and walkover studies, every parish council and flood warden where applicable should also be contacted to build the knowledge base.

7.7.13. P164. “Infiltration testing will be conducted at the Site in early 2022. The infiltration testing will comprise of test pits which will be utilised for testing to Building Research Establishment (BRE) 365 (2016) standard in order to confirm the permeability of the underlying soils and suitability for infiltration drainage.”

Is this the right testing approach?

7.7.19. P166. “Draft NPS EN-3 (BEIS, 2021) outlines the requirements for an FRA and the promotion of the use of sustainable drainage systems (SuDS).”

Mallard Pass have not detailed the use of SuDs so far, just acknowledged there are flood risk areas and will raise the height of solar panels. This does not take into account the impact of water run-off outside of the site.

7.7.21. P168. “The baseline data will be used to assess the potential effects of the Proposed Development on hydrological and hydrogeological resources within a 5km study area. This study area is based on the hydrological and hydrogeological connectivity of water bodies located downstream of the Proposed Development.”

MP need to show flood maps taking into account the 5km study area, currently Greatford is just off their map. Please note the Water Resources Sensitivity table in Appendix 7.6 – this applies to Greatford Cut (a flood plain) and is high.



7.7.28. P169 “As sections of the Site are located within Flood Zone 3a, the FRA will need to demonstrate that the Proposed Development passes the Exception and Sequential tests outlined in the NPS and NPPF. There will be a requirement to raise all electronically sensitive equipment at least 600mm above the highest modelled flood level for the 1 in 100-year (+climate change) event, or have a commitment to install flood resilient measures onsite infrastructure.”

As above point 7.7.19 if panels need to be raised, what criteria will they use to assess the use of SuDs?

7.7.29. P169. “The FRA will be produced and will focus on the following elements: □ Assessment of the introduction of new hard-standing areas on the greenfield run-off rates, using Micro Drainage software.”

This needs to take into account all the new access tracks and hard-standing bases for all the battery storage on the solar PV site.

7.7.31 P170

“Construction effects” – no mention of impact of compaction of the soil, temporary access tracks etc on water run-off.

“Operational Effects □ Increase in surface water run-off from areas of hard-standing;” - there is no mention of the impact of run-off from the solar panels themselves. Normally rain is dispersed evenly across the ground, when it falls on solar panels up to 3.5m high, there will be a huge concentration of water run-off at the bottom of the panels, leading to water channels being created, and speeding up the flow of water if the ground is unable to absorb it. These effects need to be taken account of.

7.7.39. P172. Issues to be scoped out. “Potential transfer of chemicals to surface water resources during operation”. Given the possibility of contamination from damaged panels or chemical leak from battery fire on the solar PV site, is it wise for this to be scoped out?

#### Agricultural Land Use

This is a key determining factor in the decision making process with the Planning Inspectorate, so ensuring this is scoped, correctly surveyed and assessed, is critical to the outcome of the application.

7.8.5. P173 “In order to inform the assessment an Agricultural Land Classification survey will be undertaken at the Site. Given the size of the Site the survey will be carried out at a semi-detailed scale. This will involve in the order of 210 auger locations on a regular 200 metre grid across the solar PV Site.”

What is the baseline methodology for determining 210 locations (looks too low), and what guidelines are they using to conduct these surveys?

According to the British Society of Soil Science (BSSS) Proficiency in ALC Survey Grading of land using the ALC system is not straightforward. For individual development sites this normally involves a detailed ALC field survey, according to the MAFF 1988 ALC guidelines. Proficiency in the conduct of an ALC survey requires knowledge and experience of field soil survey and the interpretation of soil, topography and climate data. There are comparatively few experts capable of carrying out ALC to a sufficient professional standard. For this reason, BSSS



has published a professional competency document<sup>4</sup> that outlines the qualification, knowledge, skills and experience required to carry out ALC.

7.8.17. P176 “In terms of magnitude of impacts, the loss of more than 50ha of BMV land is considered to be a large/major magnitude, losses of 20-50ha are of moderate/medium magnitude and losses of less than 20ha to be of low magnitude. These thresholds are based on established practice. The 20ha threshold is the trigger point for consultation with Natural England on losses of BMV agricultural land.

Based on an approximate solar PV area of 530Ha minimum, should Natural England be involved now as more than 20Ha (3.7%) is likely to be BMV land. Also more than 50Ha (10% of the land could be BMV ) which is deemed large/major magnitude. Given these statistics it is even more important that the survey work is full, thorough, qualified and wholly independent.

7.8.18. P176. Potential Effects. “The Proposed Development has the potential to affect the agricultural land quality and use of the solar PV Site. The construction process is generally considered unlikely to significantly affect the agricultural land quality or the soil resource”.

This is not the belief of local specialists who see there will be damage to the soil through compaction and drilling, putting down access tracks during the construction period. The view is the soil will not carry the nutrients necessary to return to agricultural production after 40 years. This of course will be hugely affected with how the soil is managed over the 40 year period.

#### Climate Change

7.10.10. P186. “The effect of the Proposed Development on climate change will be assessed by evaluation of two quantities. Firstly, the potential emissions associated with the construction and operation of the Proposed Development. This will include the construction process and the manufacture and transportation of the components of the Proposed Development, and the carbon dioxide emissions embodied within them.”

This assessment does not include the carbon cost of importing more of our food as a result of the loss of agricultural land production in the UK. It also does not take account of the carbon costs of replacing and recycling panels when they are no longer efficient/redundant – it is known they will not last 40 years.

#### Socio-economic

7.1..20/21 Assessment of effects. It only mentions on the negative side the loss of agricultural workers, there is also the lost income to all the other businesses in the supply chain associated with agricultural farming. This impact will continue during the operational phase. This needs to be factored in.

7.11.25 P195 “it is considered that the effect on the local tourism economy will not be significant and it is therefore proposed that this is scoped out of the EIA.” The distances to Stamford and Burghley are closer than 2.3km, as outlined earlier in the report. If you start to change the character and feel for an area it could have a negative impact particularly for Stamford.

7.11.26 P195 “Significant impacts on PROW users are therefore not anticipated and are scoped out of the EIA. A Recreation and Amenity assessment will be undertaken and submitted in support of the DCO Application”

This is too late in the process and needs to be kept in scope. How has Mallard Pass come to this conclusion? The impacts on walkers, cyclists and horse-riders will be significant,



with the potential for mental health impacts for those with fewer alternatives. Traversing these PRoW with panels and security fencing all around is akin to walking through an industrial plant, removing any sense of enjoyment or well-being. For horses it could prove dangerous, as the tunnel effect on the bridleway will prove very scary, unlike the norm of greenfield land. This absolutely needs to be scoped in to address the strength of public opinion. There is no assessment to show the benefits for the community – whether supporting their local economy or improving the social benefits.

## 8.0 Environmental Topics Scoped Out of the EIA

### Heritage

8.1.13: “Furthermore, mitigation through design (avoidance) can allow any especially sensitive buried archaeological remains (such as human remains) to be safeguarded completely from any disturbance. The desk based assessment and geophysical surveys will aid in the identification of any such locations. Thus, an assessment of buried archaeological remains can be scoped out of the EIA.”

Given a geophysical survey of the site has been completed, it is asserted that any assessment of buried archaeological remains cannot be scoped out of the EIA until such time as the results of the geophysical survey are in the public domain and aspects requiring “mitigation through design” are adequately pinpointed. Given the roman remains findings in field 36, can the geophysical surveys confirm there are no further roman remains at risk from drilling/piling. (Ref.3.1.12).

### Air Quality

8.25 P209 “it is considered likely that no exceedances of the annual mean objective will be experienced in the vicinity the Site.” Given Essendine is at the epi-centre for all 3 routes, has this been taken into account?

8.28/29 P211 “it is not expected that a specific air quality chapter will be required in the ES.”. Surely a sensitivity analysis should be done to determine if the forecast traffic movements are wrong and considerably higher, will any of the assessment thresholds be breached? This should be explored before taking out of scope.

### Risk of Major Accidents or Disasters.

8.4.2. P215 “The EIA Regulations do not include the definition of major accidents and/or disasters. For the purposes of the assessment, the following three definitions and accidents and disasters have been used within the context of the Proposed Development:

1. The Control of Major Accidents Hazard (COMAH) Regulations, 2015, defines a major accident as “an occurrence such as a major emission, fire, or explosion resulting from uncontrolled development, leading to serious danger to human health or the environment (whether immediate or delayed) inside or outside the establishment, an involving one or more dangerous substances”.

2. The International Federation of Red Cross & Red Crescent Societies Disaster and Crises Management Guidance provides a useful definition for disaster, which is “a sudden calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community’s or society’s ability to cope using its own resources. Though often caused by nature, disasters can have human origins.”; and 7863\_EIA\_0001 Mallard Pass EIA Scoping Report



3. The Oxford English Dictionary defines an accident as “an unfortunate incident that happens unexpectedly and unintentionally, typically resulting in damage or injury.”

Are these the right and appropriate definitions – “an unfortunate incident” is not how a battery storage fire and explosion will be perceived if it happens?

8.4.10. P217 “Component and equipment of the Proposed Development will be installed in accordance with the relevant Fire regulations and guidance from the Health and Safety Executive. The operational phase of the Proposed Development would involve routine maintenance and servicing of equipment to ensure the safe operation of equipment. Fire equipment and notices will also be provided onsite for the availability of personnel and would be regularly inspected and serviced in accordance with relevant Fire Regulations. The ES will include details on the measures incorporated into the design to minimise any potential impact of Proposed Development resulting from a fire. As such, a separate ES chapter covering risk from fire accidents is not considered necessary.”

The scale of this battery storage will be unprecedented in the UK and upfront design is critical to ensure the safety for the local communities is the highest priority.

8.4.11. P218 “An outline Battery Safety Management Plan (oBSMP) will be prepared and submitted with the DCO Application. The oBSMP will detail the regulatory guidance reviewed to ensure that all safety concerns around the BESS element of the Proposed Development are addressed in so far as is reasonably practicable.” – would that kind of comment be allowed with a nuclear power station?

This is one of the biggest concerns for residents given the evidence of fire safety events with lithium-ion batteries all over the world. The amount of time allocated in this report is negligible. It shows no understanding or respect to the impacts of such an adverse event. The lethal toxic gases, the uncontrollable fires, the environmental damage require more than just a plan, they require thorough design, and full assessment throughout the planning process and need to be scoped in.

#### Human Health

8.5.5 P220. Will Mallard Pass clarify there are no cable routes in close proximity to PRoW?

8.5.6. P220 “Due to interactions with human health covered elsewhere within individual topics of the ES, it is not considered necessary to provide a separate Human Health ES chapter.”

There does not seem to be any recognition or assessment of mental health impacts, just physical health. Therefore should health have been removed totally from the scope?

#### Conclusion

Table 10.1 on P230 highlights the extent of areas scoped out of the EIA. Given the unprecedented scale of this project, and the lack of full information and understanding at this early stage in the process, we would ask for a cautious approach to be exercised and for areas highlighted in this report to be recommended to be put back into scope.

28.2.22



SOUTH  
KESTEVEN  
DISTRICT  
COUNCIL



## Mallard Pass Solar Farm proposed viewpoints

### Viewpoint Mallard Pass proposed viewpoint Revised suggestions by MPAG

- 1 This viewpoint shows small area of field 29 beyond large mitigation area, set back from the road, so only partially visible. Not the best viewpoint for a montage, should be re-allocated to another area. Turn left of A6121 to Greatford, just down on RHS. Views of 29,30,33, 34,36. Better montage option.
- 2 This is along the A6121. There is a mitigation area in front of this, and the solar panels will be on a far higher piece of ground. Not clear how far set back the panels will be in field 29 that adjoins field 28. Not the best viewpoint for a montage, should be re-allocated to another area.
- 3 This viewpoint is in a low lying area out the back of Carlby, the panels heading west are on the other side of the elevated railway line. This viewpoint is irrelevant and should be removed. It should not be part of the montage selection. Recommend replacing it at the top of the footpath just outside Essendine, looking east over at fields 28,29,30,33
- 4 This point is next to the bridleway and is an obvious choice. However the viewpoint opposite, still on the same bridleway, is stronger. Just down the same bridleway a few hundred yards under the power lines. This is a 360 panoramic and should be the montage view
- 5 This looks out onto an area of mitigation on to field 39 where there will be no panels and it is not next to a footpath. Recommend moving this further up the road towards Carlby and positioned next to the footpath sign outside Grange Farm that would provide a relevant viewpoint of the panels across field 36.
- 6 This is on the wrong side of the railway line with no solar PV fields visible. The north side of the railway, 20 yards along the bridleway adjacent to field 35 provides long distance views of the PV panels.(This pic is a few yards too early as in a dip)
- 7 This is on a footpath which leaves green lane just after it starts on Newstead Lane. The point chosen is only just into the field and the current scrub land at the field edge is so high is blocks the view across to Wood Farm. The panels are to be located on this field. These 2 viewpoints on this path are far more representative of the views.
- 8 This point shows clearly the impact of the solar panels when looking across the fields as you pass gateways. Panels will be visible all along the road from Uffington to Essendine though the hedge varies in thickness and height and will afford some screening along parts of the road particularly in summer when in full leaf. This viewpoint is OK.
- 9 This viewpoint is restricted with hedgerow which is a feature down Uffington road. I suggest the viewpoint is taken in an open gateway.



10 This viewing point is on a footpath which leaves the village of Belmesthorpe off Castle Rise. There is no visibility of the proposed solar farm which is up an incline and on the other side of a fully hedged bridleway. There is no logic for it to be included. This should not be a montage view. No available alternative.

11 This viewpoint is fine.

12 This view point is located on the B1176 at the point a footpath joins the road between fields 9 and 12. The view point will show clearly the visual impact of the arrays when looking across the fields to Essendine, so relevant for walkers and horseriders. However it is a low point on the road and does not necessarily give a true perspective of the panels from the higher points of the road when travelling from Ryhall to Little Bytham by vehicle. Could be a montage option. Also suggest the following points opposite. Also suggest these viewpoints at the Drift junction looking east to Essendine across field 9, and NW in field 2.

13 The hedge is high and dense and so the fields where arrays will be mounted is not very visible at the particular point shown on the byway. It misrepresents the open coppices that flag both sides of the drift and the clear visibility field users will have where the arrays will be mounted. This by-way is very well used by walkers, horse riders, cyclists and a variety of other road users. Alternative suggestions still adjacent to field 13. Good montage point

14 This is located at Barbers Hill at the most northerly point of the scheme. However the location is on a high, flat & straight piece of road which completely misrepresents the true topography of the area – the south facing slope of the field is not evident and the view point does not give a true indication of the visual impact the scheme will have – this is clearly evident just a 100yds or so further south along the B1176 – see opposite V slightly further south on B1176 looking down the hill and across towards Essendine. A good montage option.

More suggestions opposite: Just south of the crossroads B1176 heading to Ryhall looking east across fields 5&6 & beyond.

Heading north on B1176 to Careby looking across field 4

B1176 crossroads looking across to Essendine to fields 5,6,7,8, 10,11

Heading west out of Carlby over the B1176 crossroad on RHS looking west into field 4.

28.2.22





## Comments on the Mallard Pass Scoping documentation by Uffington Parish Council, Lincolnshire

### Introduction

We accept that distributed green power sources need to be provided around the UK. Our comments do not consider the very detailed technical reports by specialists upon which it is assumed other specialist persons will analyse.

### Comments

1 The comments made are in answer to the following:

*Invite consultees to comment on the proposed EIA, in terms of:*

*1a The potential significant environmental effects which require assessment;*

*1b The assessment methodology for each environmental topic proposed to be scoped into the EIA process;*

*1c Sources of information;*

*1d Issues of perceived concern; and*

*1e Any other areas which should be addressed in the assessment.*

It has to be remembered the duty of the applicant is as follows

*This Scoping Request has been prepared to provide an overview of the likely significant environmental effects that have been considered in scoping the EIA for the Proposed Development.*

As an overview it is not required to be detailed in all respects of the physical design and construction.

The scoping document also aims to show what items are not thought to be relevant

*This Scoping Request also provides the justification and rationale for scoping out environmental topics or receptors where it is considered that significant effects are unlikely to arise as a result of the Proposed Development.*

Some of the items being scoped out may require to be reconsidered later as the results of surveys could change with the seasons.

2 in response to the issues

*1a The potential significant environmental effects which require assessment;*

The environment changes from season to season and from year to year. Worst case scenarios need to be considered including wind, snow and rain. Wildlife will also change from the dates of the surveys. There is some doubt that all the buried artifacts in the area including graves have not been discovered or considered.

There is much worry about the impact of the site traffic on the area and the narrow roads. There is mention of many hundreds of site staff that will all require transport to site but we can find no consideration of their impact on the community as a whole.

There is mention of 60 traffic movements per day of heavy vehicles but nothing of lighter vehicles or of heavy lifting gear to unload and erect the structures. There is no mention of whether the communities are to be exposed to inconvenience 5 or 7 days per week? The use of the A1175 involves crossing the rail line at Tallington, a location with low overhead wires and great traffic delays. We fear that delays will be far worse with slow HGV traffic for the site. There is then the roll-on effect of nuisance to properties fronting the A1175.

*1b the assessment methodology for each environmental topic proposed to be scoped into the EIA process;*

This is a specialised topic and the concerns are mentioned above. There is little mention of how the land within the project could be used for agricultural purposes that mitigate the loss of the land for arable uses. For example, what would be the equivalent land area be made available as % of the overall area.

*1d Issues of perceived concern;*

The list includes, noise, traffic movements, physical size of the project, damage to roads and bridleways etc, visual impact, proximity to housing, local flooding, dangers of solar panels dislodged in gales, reflected glare at road or rail levels, traffic levels after construction for maintenance and repair, supply of products within the UK, the use of local labour and suppliers.

We are confused by greatly differing statements regarding the site output. In past information the advice was 50MWe but in later distributed information it is 350MWe.

It is claimed that other UK sites with similar capacities occupy a smaller footprint. If this is true why is the MP site so large at approximately 900ha?

*Pegasus Group last year submitted plans on behalf of Branston Solar Extension for a 49.9 MW solar photovoltaics (PV) scheme in Lincolnshire, eastern England.*

*The scheme has received approvals from North Kesteven District Council, making it the latest in a number of large-scale solar developments proposed by developers since the UK withdrew subsidy support for solar schemes.*

*According to Pegasus, the solar scheme will be built on 97 ha of land.*

There is worry in some quarters about the safety issues relating to battery storage sites. It is assumed that these will be distributed around the sites but no information is provided about the proximity to other buildings and how safety is to be attained. In the event of an issue, it is assumed there will be serious air quality issues. How will this be controlled?

There is mention of decommissioning after year 40. We would like to see secure funds set aside to ensure the work takes place in the event of failure of the Company.

Katie Turner

Clerk - On behalf of Uffington Parish Council



UK Health  
Security  
Agency

Environmental Hazards and Emergencies Department  
Seaton House, City Link  
London Road  
Nottingham, NG2 4LA

[nsipconsultations@phe.gov.uk](mailto:nsipconsultations@phe.gov.uk)  
[www.gov.uk/ukhsa](http://www.gov.uk/ukhsa)

Your Ref: EN010127  
Our Ref: CIRIS58885

Ms Katherine King  
Senior EIA Advisor  
The Planning Inspectorate  
Temple Quay House,  
2 The Square  
Bristol BS1 6PN

7<sup>th</sup> March 2022

Dear Ms King

**Nationally Significant Infrastructure Project  
Mallard Pass Solar Farm Limited  
Scoping Consultation Stage**

Thank you for including the UK Health Security Agency (UKHSA) in the scoping consultation phase of the above application. ***Please note that we request views from the Office for Health Improvement and Disparities (OHID) and the response provided below is sent on behalf of both UKHSA and OHID.*** The response is impartial and independent.

The health of an individual or a population is the result of a complex interaction of a wide range of different determinants of health, from an individual's genetic make-up, to lifestyles and behaviours, and the communities, local economy, built and natural environments to global ecosystem trends. All developments will have some effect on the determinants of health, which in turn will influence the health and wellbeing of the general population, vulnerable groups and individual people. Although assessing impacts on health beyond direct effects from for example emissions to air or road traffic incidents is complex, there is a need to ensure a proportionate assessment focused on an application's significant effects.

Having considered the submitted scoping report we wish to make the following specific comments and recommendations:

**Environmental Public Health**

We understand that the promoter will wish to avoid unnecessary duplication and that many issues including air quality, emissions to water, waste, contaminated land etc. will be

covered elsewhere in the Environmental Statement (ES). We believe the summation of relevant issues into a specific section of the report provides a focus which ensures that public health is given adequate consideration. The section should summarise key information, risk assessments, proposed mitigation measures, conclusions and residual impacts, relating to human health. Compliance with the requirements of National Policy Statements and relevant guidance and standards should also be highlighted.

In terms of the level of detail to be included in an ES, we recognise that the differing nature of projects is such that their impacts will vary. UKHSA and OHID's predecessor organisation Public Health England produced an advice document *Advice on the content of Environmental Statements accompanying an application under the NSIP Regime*<sup>1</sup>, setting out aspects to be addressed within the Environmental Statement<sup>1</sup>. This advice document and its recommendations are still valid and should be considered when preparing an ES. Please note that where impacts relating to health and/or further assessments are scoped out, promoters should fully explain and justify this within the submitted documentation.

- The developer scopes out an assessment of air quality impacts. We recognise that the construction phase will be managed using a CEMP, to mitigate impacts on air quality however we would expect air quality impacts to be evaluated in some detail.

#### Recommendation

We recommend that the developer provides further justification for the scoping out of air quality during the construction phase.

- The developer scopes out the impact from accidents on air quality. In the event of a fire a number of substances will be produced by the combustion process. Nearby residents are likely to be concerned about what is burning in the fire and what substances are likely to be produced. An air quality assessment in relation to a fire scenario should therefore identify an inventory of hazardous chemicals expected to be present on site, in terms of quantities and likely products of combustion. Particulate matter emissions from a fire should also be considered.

#### Recommendation

We would welcome an assessment of air quality impacts from a fire scenario, to consider the hazardous chemicals associated with the development and what they would produce when undergoing combustion, which would include particulate matter.

#### Recommendation

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<sup>1</sup>  
<https://khub.net/documents/135939561/390856715/Advice+on+the+content+of+environmental+statements+accompanying+an+application+under+the+Nationally+Significant+Infrastructure+Planning+Regime.pdf/a86b5521-46cc-98e4-4cad-f81a6c58f2e2?t=1615998516658>

Our position is that pollutants associated with road traffic or combustion, particularly particulate matter and oxides of nitrogen are non-threshold; i.e, an exposed population is likely to be subject to potential harm at any level and that reducing public exposure to non-threshold pollutants (such as particulate matter and nitrogen dioxide) below air quality standards will have potential public health benefits. We support approaches which minimise or mitigate public exposure to non-threshold air pollutants, address inequalities (in exposure) and maximise co-benefits (such as physical exercise). We encourage their consideration during development design, environmental and health impact assessment, and development consent.

### **Electromagnetic Fields (EMFs)**

The applicant should assess the potential public health impact of EMFs arising from any electrical equipment associated with the development. Alternatively, a statement should be provide explaining why EMFs can be scoped out. For more information on how to carry out the assessment, please see the accompanying reference for details<sup>1</sup>.

### **Human Health and Wellbeing**

This section of OHIDs response, identifies the wider determinants of health and wellbeing we expect the ES to address, to demonstrate whether they are likely to give rise to significant effects. OHID has focused its approach on scoping determinants of health and wellbeing under four themes, which have been derived from an analysis of the wider determinants of health mentioned in the National Policy Statements. The four themes are:

- Access
- Traffic and Transport
- Socioeconomic
- Land Use

Having considered the submitted scoping report OHID wish to make the following specific comments and recommendations:

### **Population and Human health assessment**

It is noted that population and human health will be considered within existing chapters and not form a separate chapter within the ES. Given the current knowledge of the scheme and potential impacts this appears to be a proportionate approach. This should be kept under review as more information becomes available and a separate population and human health chapter may be justified as the assessments develop.

### **Assessment of significance**

Table 6.1 identifies the degrees of significance but does not identify which will be considered to be significant for the purpose of the assessment. It is anticipated that moderate and major effects would be significant. Any deviation within individual chapters relating to population or human health should be identified and justified.

### **Recommendation**

The ES should identify which levels of significance in Table 6.1 are to be considered significant. It is expected that moderate and major will be considered significant.

### **Socio-economics - Housing affordability and availability**

The scoping report identifies the potential number of peak construction workforce (400 peak), but does not estimate the number of non-home based workers which will require local accommodation.

The presence of significant numbers of workers could foreseeably have an impact on the local availability of affordable housing and tourist accommodation, particularly that of short term tenancies and affordable homes for certain communities.

This may lead to a lack of affordable local accommodation for vulnerable residents with the least capacity to respond to change (for example, where there may be an overlap between construction workers seeking accommodation in the private rented sector, and people in receipt of housing benefit seeking the same lower-cost accommodation).

#### **Recommendation**

The peak numbers of non-home-based workers should be established and a proportionate assessment undertaken on the impacts for housing availability and affordability and impacts on any local services.

Any cumulative effect assessment should consider the impact on demand for housing by construction workers and the likely numbers of non-home-based workers required across all schemes.

The assessment should also include potential impacts on tourist accommodation within the socio-economic assessment.

### **Socio-economics – Public Rights of Way (PRoW)**

The scoping report proposes to scope out PRoW (para 7.11.26) yet both the landscape and transport chapters both include PRoW within their scope. Given the Environmental Impact Assessment will scope in PRoW within the other chapters the socio-economics chapter should cross reference to any significant findings in relation to PRoW.

#### **Recommendation**

The socio-economics chapter should cross reference to any significant findings in relation to PRoW.

Yours sincerely

On behalf of UK Health Security Agency  
[nsipconsultations@phe.gov.uk](mailto:nsipconsultations@phe.gov.uk)

*Please mark any correspondence for the attention of National Infrastructure Planning Administration.*

Date: 10 March 2022  
Our ref: 383394  
Your ref: 21/01473/PREAPP



Joseph Briody  
The Planning Inspectorate  
Temple Quay House  
2 The Square  
Bristol  
BS1 6PN

**BY EMAIL ONLY**

Consultations  
Hornbeam House  
Crewe Business Park  
Electra Way  
Crewe  
Cheshire  
CW1 6GJ

T 0300 060 900

Dear Mr Briody

**Environmental Impact Assessment Scoping Consultation (Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11): Mallard Solar Project**

Thank you for seeking our advice on the scope of the Environmental Statement in the consultation dated 7 February 2022.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

A robust assessment of environmental impacts and opportunities based on relevant and up to date environmental information should be undertaken prior to a decision on whether to grant a Development Consent Order. Annex A provides Natural England's general advice on the scope of Environmental Impact Assessments (EIA).

We understand that the EIA will be carried out on the basis that the development is permanent, to ensure a worst-case assessment of likely significant effects and that for the purposes of the environmental impact assessment the decommissioning assessment will be based on a 40-year operational life span for the solar infrastructure.

We would bring your attention to Natural England Technical Information Note 101 (TIN101) '*Solar Parks: maximising environmental benefits*' (2011) which provides guidance relating to solar parks, their siting, their potential impacts and mitigation requirements for the safeguarding of the natural environment.

For this specific proposed development the Environmental Statement (ES) should particularly consider the following:



## **1. Impact of the proposed development on the following designated sites:**

- Tolethorpe Road Verges Site of Special Scientific Interest
- Ryhall Pasture and Little Warren Verges Site of Special Scientific Interest

Accidental damage and other direct or indirect effects may occur to these Sites of Special Scientific Interest, their being adjacent to the site. The ES would need to show any potential effects on these designations, including impacts on foraging habitat, noise, water quality, air quality or other disturbance which may damage or destroy the interest features for which these SSSIs have been notified. Impacts would need to be considered at all stages of the proposed development i.e. construction, operation and de-commissioning. It should also detail the mitigation required to avoid any identified impacts on designated sites.

The proposed development is not within any Impact Risk Zones for European Designated sites; thus we would not anticipate any adverse impacts to European designated sites, or the need for a Habitats Regulations Assessment.

Mitigation should be secured through a Construction Environmental Management Plan which will set out the locations of these features and the measures proposed for their protection.

## **2. In-Combination/Cumulative impacts**

The Environmental Statement should include in-combination/cumulative assessment. We are aware of several other solar Nationally Significant Infrastructure Projects in Lincolnshire/ Nottinghamshire, including Heckington Fen, West Burton, Cottam, Gate Burton and Little Crow. Due to the size of each of these individual projects, we would like to see these projects also included within the cumulative assessment, where appropriate.

## **3. Loss of Agricultural Land (BMV)**

It is recognised that due to the nature of the solar panels a good proportion of the agricultural land affected by the development will not be permanently lost. In order to both retain the long-term potential of this land and to safeguard all soil resources as part of the overall sustainability of the whole development, it is important that the soil is able to retain as many of its many important functions and services (ecosystem services) as possible.

The following issues should be considered and included as part of the Environmental Statement (ES):

- The degree to which soils would be disturbed or damaged as part of the development
- The extent to which agricultural land would be disturbed or lost as part of this development, including whether any Best and Most Versatile (BMV) agricultural land would be impacted.
- The ES should set out details of how any adverse impacts on BMV agricultural land can be minimised through site design/masterplan.
- The ES should also set out details of how any adverse impacts on soils can be avoided or minimised and demonstrate how soils will be sustainably used and managed, including consideration in site design and master planning, and areas for green infrastructure or biodiversity net gain. The aim will be to minimise soil handling and maximise the sustainable

use and management of the available soil to achieve successful after-uses and minimise offsite impacts.

The Agricultural Land Classification (ALC) mapping published by Natural England indicates that the site comprises of predominantly Grade 3 agricultural land, with an area of Grade 2 agricultural land located in the southern extent of the site. The ALC maps do not differentiate Grade 3 into subgrades 3a and 3b. We acknowledge the intention, that to fully assess the impacts to BMV land, a detailed ALC survey will be carried out. This should normally be at a detailed level, e.g. one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, i.e. 1.2 metres.

Further information is available in the [Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites and](#) The British Society of Soil Science Guidance Note [Benefitting from Soil Management in Development and Construction](#). Further guidance is also set out in the Natural England [Guide to assessing development proposals on agricultural land](#)

#### **4. Regionally and Locally**

The ES should consider any impacts upon local wildlife and geological sites, including local nature reserves. It is reported in the scoping document that a total of 98 non-statutory Local Wildlife Sites (LWS) are present within 2km of the site. Two LWS (the Carlby/Essendine Verge LWS and Essendine Dismantled Railway Embankment LWS) are located onsite, with an additional 25 sites directly adjacent to the site boundary or within 10m. The ES should set out proposals for mitigation of any impacts and if appropriate, compensation measures and opportunities for enhancement and improved connectivity with wider ecological networks. As stated, consultation should therefore take place with the Ecology Officers for Leicestershire, Rutland and Lincolnshire County Councils. Non-statutory consultees such as the Wildlife Trusts should also be approached.

#### **5. Protected Species**

The ES should assess the impact of all phases of the proposal on protected species. It should also provide details of any proposed mitigation measures required to protect these species. Consideration should be given to the wider context of the site, for example in terms of habitat linkages and protected species populations in the wider area. It is noted that ground nesting birds may specifically be at risk due to the large land-take involved with the development. We note that a suite of detailed surveys has already been undertaken including an extended Phase 1 habitat survey, water vole and otter surveys, badger survey, breeding bird survey, wintering bird surveys and great crested newt surveys. Mitigation has been proposed including: the lighting scheme to be designed to avoid artificial lighting on linear features (including hedgerows and water courses), woodland and other retained or created habitats; onsite operational traffic to be minimal and limited to maintenance vehicle movements at very low intensity to avoid risk of accidentally injuring or killing any protected or notable species and no regular presence or work is envisaged onsite leading to disturbance of retained or created habitats.

#### **6. Ancient Woodland**

Ancient woodland is present immediately adjacent to the site boundary to the north-east of the site. The ES should assess the impacts of the proposal on any ancient woodland,

ancient and veteran trees, and the scope to avoid and mitigate for adverse impacts. It should also consider opportunities for enhancement.

## **7. Biodiversity Net Gain**

The ES should include a Biodiversity Net Gain Assessment and Habitat Management Plan. The Habitat Management Plan should explain how the site will continue to be managed and secured for the lifetime of the development. The Habitat Management Plan should also provide details on retention and enhancement of existing habitat features such as hedgerows, woodland and ponds. We would also particularly need details on proposed habitat connectivity to surrounding habitats which would contribute to the wider Nature Recovery Network.

Biodiversity Metric 3.0 provides a way of measuring and accounting for biodiversity losses and gains resulting from development or land management change. It can be found at [The Biodiversity Metric 3.0 - JP039 \(nepubprod.appspot.com\)](https://www.nepubprod.appspot.com)

## **8. After use**

The Environmental Statement should include details of the decommissioning and after use of the site, which should include details on how this will avoid impacts to soils and ensure the agricultural land can be restored to its former condition.

## **9. Impact on local landscapes**

The site does not lie within any national landscape designations. The ES should include an assessment of local landscape character through the consideration of the relevant National Character Areas (NCAs) and any local landscape character assessments. This should also include any likely in-combination/cumulative effects from other known solar projects, such as those named previously. We would expect the following forms of guidance to be used, as indicated in the scoping report:

- 'Guidelines for Landscape and Visual Impact Assessment' (3rd Edition) (GLVIA3), Landscape Institute and Institute of Environmental Management and Assessment, 2013;
- 'An Approach to Landscape Character Assessment', Natural England, 2014; and
- 'Visual Representation of Development Proposals Technical Guidance Note' 06/19, Landscape Institute, 2019.

## **10. Contribution to local environmental initiatives and priorities**

The ES should consider the contribution the development could make to relevant local environmental initiatives and priorities to enhance the environmental quality of the development and deliver wider environmental gains. This should include considering proposals set out in relevant local strategies or supplementary planning documents including landscape strategies, green infrastructure strategies, tree and woodland strategies, biodiversity strategies or biodiversity opportunity areas.

We note that contributions to green infrastructure are to be made by the retention of existing hedgerows, woodland, ditches, ponds and field margins within the layout of the solar arrays, with the exception of small breaks and/or crossings required for new access tracks, security

fencing and cable routes. Any breaks or crossing will be designed to use existing agricultural gateways/tracks between the fields and the width of any new breaks will be kept to a minimum. It is anticipated that areas under the solar arrays, areas outside of the areas and within the landscape buffers will be planted with a combination of native grassland mix, wildflower mixes, hedgerows and woodland will be planted in strategic locations to provide visual screening, ecological habitats in order to achieve a minimum 10% biodiversity net gain. This will include the creation of diverse wildflower grassland outside the proposed solar array and seeding of permanent grassland within the array.

We note that the existing Public Rights of Way that cross the site will be retained and incorporated within multifunctional green corridors. Subject to the construction phasing and methodology there may be a requirement to temporarily divert a public right of way during the construction phase, the details of which will be sought to be agreed with the relevant key stakeholders, with an appropriate temporary alternative provided.

### **Further Information**

Annex A Provides Natural England's general advice on the scope of Environmental Impact Assessments (EIA).

Should the proposal be amended in a way which significantly affects its impact on the natural environment then, in accordance with Section 4 of the Natural Environment and Rural Communities Act 2006, Natural England should be consulted again.

We would be happy to comment further should the need arise but if in the meantime you have any queries, please do not hesitate to contact us.

For any queries relating to the specific advice in this letter please contact Sandra Close at [REDACTED] send any new consultations or further information on this consultation to [consultations@naturalengland.org.uk](mailto:consultations@naturalengland.org.uk).

**Yours sincerely**

**SANDRA CLOSE**  
**Lead Adviser**  
**East Midlands Area Delivery**

## **Annex A – Natural England Advice on EIA Scoping**

### **General Principles**

[Schedule 4](#) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, sets out the information that should be included in an Environmental Statement (ES) to assess impacts on the natural environment. This includes:

- A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation etc.) resulting from the operation of the proposed development
- An assessment of alternatives and clear reasoning as to why the preferred option has been chosen
- A description of the aspects of the environment likely to be significantly affected by the development including biodiversity (for example fauna and flora), land, including land take, soil, water, air, climate (for example greenhouse gas emissions, impacts relevant to adaptation, cultural heritage and landscape and the interrelationship between the above factors
- A description of the likely significant effects of the development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium, and long term, permanent and temporary, positive, and negative effects. Effects should relate to the existence of the development, the use of natural resources (in particular land, soil, water and biodiversity) and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment
- A non-technical summary of the information
- An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information

Further guidance is set out in Planning Practice Guidance on [environmental assessment and natural environment](#).

### **Cumulative and in-combination effects**

The ES should fully consider the implications of the whole development proposal. This should include an assessment of all supporting infrastructure.

An impact assessment should identify, describe, and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment (subject to available information):

- a. existing completed projects;
- b. approved but uncompleted projects;
- c. ongoing activities;
- d. plans or projects for which an application has been made and which are under consideration by the consenting authorities; and
- e. plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before

completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

### **Environmental data**

Natural England is required to make available information it holds where requested to do so. National datasets held by Natural England are available at <http://www.naturalengland.org.uk/publications/data/default.aspx>.

Detailed information on the natural environment is available at [www.magic.gov.uk](http://www.magic.gov.uk).

Natural England's SSSI Impact Risk Zones are a GIS dataset which can be used to help identify the potential for the development to impact on a SSSI. The dataset and user guidance can be accessed from the [Natural England Open Data Geoportal](#).

Natural England does not hold local information on local sites, local landscape character, priority habitats and species or protected species. Local environmental data should be obtained from the appropriate local bodies. This may include the local environmental records centre, the local wildlife trust, local geo-conservation group or other recording society.

### **Biodiversity and Geodiversity**

#### **General principles**

The [National Planning Policy Framework](#) (paragraphs 174-175 and 179-182) sets out how to take account of biodiversity and geodiversity interests in planning decisions. Further guidance is set out in Planning Practice Guidance on the [natural environment](#).

The potential impact of the proposal upon sites and features of nature conservation interest and opportunities for nature recovery and biodiversity net gain should be included in the assessment.

Ecological Impact Assessment (EclA) is the process of identifying, quantifying, and evaluating the potential impacts of defined actions on ecosystems or their components. EclA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal. [Guidelines](#) have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM).

#### **Designated nature conservation sites**

##### **Nationally designated sites**

This development may impact on the following Sites of Scientific Interest (SSSI)

- Tolethorpe Road Verges SSSI
- Ryhall Pasture and Little Warren Verges SSSI

Sites of Special Scientific Interest are protected under the Wildlife and Countryside Act 1981 and paragraph 180 of the NPPF. Further information on the SSSI and its special interest features can be found at [www.magic.gov](http://www.magic.gov).

Natural England's SSSI Impact Risk Zones can be used to help identify the potential for the development to impact on a SSSI. The dataset and user guidance can be accessed from the [Natural England Open Data Geoportals](#).

The Environmental Statement should include a full assessment of the direct and indirect effects of the development on the features of special interest within the SSSI and identify appropriate mitigation measures to avoid, minimise or reduce any adverse significant effects. The consideration of likely significant effects should include any functionally linked land outside the designated site. These areas may provide important habitat for mobile species populations that are interest features of the SSSI, for example birds and bats. This can also include areas which have a critical function to a habitat feature within a site, for example by being linked hydrologically or geomorphologically.

### **Regionally and Locally Important Sites**

The ES should consider any impacts upon local wildlife and geological sites, including local nature reserves. Local Sites are identified by the local wildlife trust, geoconservation group or other local group and protected under the NPPF (paragraph 174 and 175). The ES should set out proposals for mitigation of any impacts and if appropriate, compensation measures and opportunities for enhancement and improving connectivity with wider ecological networks. Contact the relevant local body for further information.

### **Protected Species**

The conservation of species protected under the Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species Regulations 2017

is explained in Part IV and Annex A of Government Circular 06/2005 [Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System](#).

The ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law. Records of protected species should be obtained from appropriate local biological record centres, nature conservation organisations and local groups. Consideration should be given to the wider context of the site, for example in terms of habitat linkages and protected species populations in the wider area.

The area likely to be affected by the development should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and, where necessary, licensed, consultants.

Natural England has adopted [standing advice](#) for protected species, which includes guidance on survey and mitigation measures. A separate protected species licence from Natural England or Defra may also be required.



## **District Level Licensing for Great Crested Newts**

District level licensing (DLL) is a type of strategic mitigation licence for great crested newts (GCN) granted in certain areas at a local authority or wider scale. A [DLL scheme for GCN](#) may be in place at the location of the development site. If a DLL scheme is in place, developers can make a financial contribution to strategic, off-site habitat compensation instead of applying for a separate licence or carrying out individual detailed surveys. By demonstrating that DLL will be used, impacts on GCN can be scoped out of detailed assessment in the Environmental Statement.

## **Priority Habitats and Species**

Priority Habitats and Species are of particular importance for nature conservation and included in the England Biodiversity List published under section 41 of the Natural Environment and Rural Communities Act 2006. Most priority habitats will be mapped either as Sites of Special Scientific Interest, on the Magic website or as Local Wildlife Sites. Lists of priority habitats and species can be found [here](#). Natural England does not routinely hold species data. Such data should be collected when impacts on priority habitats or species are considered likely.

Consideration should also be given to the potential environmental value of brownfield sites, often found in urban areas and former industrial land. Sites can be checked against the (draft) national Open Mosaic Habitat (OMH) inventory published by Natural England and freely available to [download](#). Further information is also available [here](#).

An appropriate level habitat survey should be carried out on the site, to identify any important habitats present. In addition, ornithological, botanical, and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present.

The Environmental Statement should include details of:

- Any historical data for the site affected by the proposal (e.g. from previous surveys)
- Additional surveys carried out as part of this proposal
- The habitats and species present
- The status of these habitats and species (e.g. whether priority species or habitat)
- The direct and indirect effects of the development upon those habitats and species
- Full details of any mitigation or compensation measures
- Opportunities for biodiversity net gain or other environmental enhancement

## **Ancient Woodland, Ancient and Veteran Trees**

The ES should assess the impacts of the proposal on any ancient woodland, ancient and veteran trees, and the scope to avoid and mitigate for adverse impacts. It should also consider opportunities for enhancement.

Natural England maintains the Ancient Woodland [Inventory](#) which can help identify ancient woodland. The [wood pasture and parkland inventory](#) sets out information on wood pasture and parkland.

The [ancient tree inventory](#) provides information on the location of ancient and veteran trees.

Natural England and the Forestry Commission have prepared [standing advice](#) on ancient woodland, ancient and veteran trees.

### **Biodiversity net gain**

Paragraph 174 of the NPPF states that decisions should contribute to and enhance the natural and local environment by minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Biodiversity Net Gain is additional to statutory requirements relating to designated nature conservation sites and protected species.

The ES should use an appropriate biodiversity metric such as [Biodiversity Metric 3.0](#) together with ecological advice to calculate the change in biodiversity resulting from proposed development and demonstrate how proposals can achieve a net gain.

The metric should be used to:

- assess or audit the biodiversity unit value of land within the application area
- calculate the losses and gains in biodiversity unit value resulting from proposed development
- demonstrate that the required percentage biodiversity net gain will be achieved

Biodiversity Net Gain outcomes can be achieved on site, off-site or through a combination of both. On-site provision should be considered first. Delivery should create or enhance habitats of equal or higher value. When delivering net gain, opportunities should be sought to link delivery to relevant plans or strategies e.g. Green Infrastructure Strategies or Local Nature Recovery Strategies.

Opportunities for wider environmental gains should also be considered.

### **Landscape**

#### **Landscape and visual impacts**

The environmental assessment should refer to the relevant [National Character Areas](#). Character area profiles set out descriptions of each landscape area and statements of environmental opportunity.

The ES should include a full assessment of the potential impacts of the development on local landscape character using [landscape assessment methodologies](#). We encourage the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2013. LCA provides a sound basis for guiding, informing, and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character.

A landscape and visual impact assessment should also be carried out for the proposed development and surrounding area. Natural England recommends use of the methodology set out in *Guidelines for Landscape and Visual Impact Assessment 2013* ((3rd edition) produced by the Landscape Institute and the Institute of Environmental Assessment and

Management. For National Parks and AONBs, we advise that the assessment also includes effects on the 'special qualities' of the designated landscape, as set out in the statutory management plan for the area. These identify the particular landscape and related characteristics which underpin the natural beauty of the area and its designation status.

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. This should include an assessment of the impacts of other proposals currently at scoping stage.

To ensure high quality development that responds to and enhances local landscape character and distinctiveness, the siting and design of the proposed development should reflect local characteristics and, wherever possible, use local materials. Account should be taken of local design policies, design codes and guides as well as guidance in the [National Design Guide](#) and [National Model Design Code](#). The ES should set out the measures to be taken to ensure the development will deliver high standards of design and green infrastructure. It should also set out detail of layout alternatives, where appropriate, with a justification of the selected option in terms of landscape impact and benefit.

### **Heritage Landscapes**

The ES should include an assessment of the impacts on any land in the area affected by the development which qualifies for conditional exemption from capital taxes on the grounds of outstanding scenic, scientific, or historic interest. An up-to-date list is available at [www.hmrc.gov.uk/heritage/lbsearch.htm](http://www.hmrc.gov.uk/heritage/lbsearch.htm).

### **Connecting People with Nature**

The ES should consider potential impacts on access land, common land, public rights of way and, where appropriate, the England Coast Path and coastal access routes and coastal margin in the vicinity of the development, in line with NPPF paragraph 100. It should assess the scope to mitigate for any adverse impacts. Rights of Way Improvement Plans (ROWIP) can be used to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

Measures to help people to better access the countryside for quiet enjoyment and opportunities to connect with nature should be considered. Such measures could include reinstating existing footpaths or the creation of new footpaths, cycleways, and bridleways. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Access to nature within the development site should also be considered, including the role that natural links have in connecting habitats and providing potential pathways for movements of species.

Relevant aspects of local authority green infrastructure strategies should be incorporated where appropriate.

### **Soils and Agricultural Land Quality**

Soils are a valuable, finite natural resource and should also be considered for the ecosystem services they provide, including for food production, water storage and flood mitigation, as a carbon store, reservoir of biodiversity and buffer against pollution. It is therefore important that the soil resources are protected and sustainably managed. Impacts from the development on soils and best and most versatile (BMV) agricultural land should be considered in line with paragraphs 174 and 175 of the NPPF. Further guidance is set out in the Natural England [Guide to assessing development proposals on agricultural land](#).

As set out in paragraph 211 of the NPPF, new sites or extensions to sites for peat extraction should not be granted planning permission.

The following issues should be considered and, where appropriate, included as part of the Environmental Statement (ES):

- The degree to which soils would be disturbed or damaged as part of the development
- The extent to which agricultural land would be disturbed or lost as part of this development, including whether any best and most versatile (BMV) agricultural land would be impacted.

This may require a detailed Agricultural Land Classification (ALC) survey if one is not already available. For information on the availability of existing ALC information see [www.magic.gov.uk](http://www.magic.gov.uk).

- Where an ALC and soil survey of the land is required, this should normally be at a detailed level, e.g. one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, i.e. 1.2 metres. The survey data can inform suitable soil handling methods and appropriate reuse of the soil resource where required (e.g. agricultural reinstatement, habitat creation, landscaping, allotments and public open space).
- The ES should set out details of how any adverse impacts on BMV agricultural land can be minimised through site design/masterplan.
- The ES should set out details of how any adverse impacts on soils can be avoided or minimised and demonstrate how soils will be sustainably used and managed, including consideration in site design and master planning, and areas for green infrastructure or biodiversity net gain. The aim will be to minimise soil handling and maximise the sustainable use and management of the available soil to achieve successful after-uses and minimise off-site impacts.

Further information is available in the [Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites and](#)

The British Society of Soil Science Guidance Note [Benefitting from Soil Management in Development and Construction](#).

## **Air Quality**

Air quality in the UK has improved over recent decades but air pollution remains a significant issue. For example, approximately 85% of protected nature conservation sites are currently in exceedance of nitrogen levels where harm is expected (critical load) and approximately 87% of sites exceed the level of ammonia where harm is expected for lower plants (critical level of 1µg) <sup>[1]</sup>. A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The Government's Clean Air Strategy also has a number of targets to reduce emissions including to reduce damaging deposition of reactive forms of nitrogen by 17% over England's protected priority sensitive habitats by 2030, to reduce emissions of ammonia against the 2005 baseline by 16% by 2030 and to reduce emissions of NO<sub>x</sub> and SO<sub>2</sub> against a 2005 baseline of 73% and 88% respectively by 2030. Shared Nitrogen Action Plans (SNAPs) have also been identified as a tool to reduce environmental damage from air pollution.

The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly, or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. The ES should take account of the risks of air pollution and how these can be managed or reduced. This should include taking account of any strategic solutions or SNAPs, which may be being developed or implemented to mitigate the impacts on air quality. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System ([www.apis.ac.uk](http://www.apis.ac.uk)).

Information on air pollution modelling, screening and assessment can be found on the following websites:

- SCAIL Combustion and SCAIL Agriculture - <http://www.scail.ceh.ac.uk/>
- Ammonia assessment for agricultural development <https://www.gov.uk/guidance/intensive-farming-risk-assessment-for-your-environmental-permit>
- Environment Agency Screening Tool for industrial emissions <https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit>
- Defra Local Air Quality Management Area Tool (Industrial Emission Screening Tool) – England <http://www.airqualityengland.co.uk/laqm>

### **Contribution to local environmental initiatives and priorities**

The ES should consider the contribution the development could make to relevant local environmental initiatives and priorities to enhance the environmental quality of the development and deliver wider environmental gains. This should include considering proposals set out in relevant local strategies or supplementary planning documents including landscape strategies, green infrastructure strategies, tree and woodland strategies, biodiversity strategies or biodiversity opportunity areas.

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<sup>[1]</sup> [Report: Trends Report 2020: Trends in critical load and critical level exceedances in the UK - Defra, UK](#)