



Mallard Pass

Solar Farm

Mallard Pass Solar Farm

Preliminary Environmental Information Report

Non-Technical Summary

May 2022

1.0 Introduction

1.1 Overview

1.1.1 This document has been prepared on behalf of Mallard Pass Solar Farm Ltd (the 'Applicant') and provides a Non-Technical Summary (NTS) of the Preliminary Environmental Information Report (PEIR) for the proposed Mallard Pass Solar Farm.

1.1.2 The Applicant is planning to submit an application for a Development Consent Order (DCO) to the Secretary of State for Business, Energy, and Industrial Strategy as Mallard Pass Solar Farm is classed as a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008, as the capacity exceeds 50MW.

1.2 What is the Mallard Pass Solar Farm Project?

1.2.1 Mallard Pass Solar Farm (hereafter referred to as the Proposed Development) is a proposed solar farm for the installation of solar photovoltaic (PV) generating panels which would allow for the generation and export of electricity exceeding 50 megawatts (MW). The principal components of the Proposed Development comprise the following:

- PV Arrays;
- Mounting structures;
- Inverters;
- Transformers;
- Switchgears;
- Primary Onsite Substation and Ancillary Buildings;
- Low Voltage Distribution Cabling;
- Grid Connection Cables;
- Fencing, security and ancillary infrastructure;
- Access Tracks; and
- Green infrastructure (GI).

- 1.2.2 The location of the Proposed Development is shown on Figure 1 at the end of this NTS.

1.3 The Applicant

- 1.3.1 Mallard Pass Solar Farm Limited is a subsidiary of Windel Energy Ltd.
- 1.3.2 Windel Energy 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, onshore wind and green hydrogen technologies with projects ranging from 10MW to 320MW output across England and Wales. Windel Energy Ltd work closely with landowners, giving them the opportunity to diversify their income stream by leasing their land for solar development.
- 1.3.3 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 power companies. It is a leading manufacturer of 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.

1.4 Purpose of the PEIR

- 1.4.1 The purpose of the PEIR is to “*enable the local community to understand the environmental effects of the proposed development so as to inform their responses regarding the proposed development*” (Planning Inspectorate, Planning Advice Note 7). The PEIR has been prepared to meet the requirements of Regulation 12(2) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (‘the EIA Regulations’).

1.4.2 EIA is a systematic process used to predict the adverse (negative) and beneficial (positive) effects of a proposed development. The PEIR provides the preliminary findings of the environmental assessment undertaken to date. It does not constitute a draft Environmental Statement (ES), which will be produced to support the Development Consent Order (DCO) application. It is intended that the PEIR provides consultees with an opportunity to provide informed comments on the work undertaken to date prior to the DCO Application being submitted. The Applicant will consider these comments when finalising the ES and DCO application.

1.4.3 The various assessments are at differing stages of completion due to ongoing design work and continued gathering of baseline information. Where assessments are not yet fully complete, an explanation is provided in the relevant PEIR chapter on how this will be further developed for the ES.

1.4.4 The purpose of this NTS is to describe the Proposed Development and provide a summary in non-technical language of the key findings of the PEIR.

1.5 The EIA Regulations

1.5.1 The purpose of EIA is to ensure that the likely significant environmental effects of the Proposed Development are understood and properly taken into account when decision-makers consider an application for development consent.

1.5.2 The EIA process is designed to produce an environmentally sensitive development by considering and assessing the effects of the Proposed Development against existing environmental baseline conditions. At the outset of the project, the EIA team undertook a review of the Site in order to identify potential environmental sensitive receptors. This initial study

was used to inform the Stage 1 Concept Masterplan of the Proposed Development which was presented within the non-statutory consultation exercise undertaken in November 2021. Further design, consultation and assessment work has been undertaken following the conclusion of the non-statutory consultation which has informed the design and information presented within the PEIR.

EIA Scoping

- 1.5.3 EIA Scoping is a stage within the EIA process that is used to identify issues to be considered within the ES and establish the scope of the assessment. 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.
- 1.5.4 Following the non-statutory consultation the Applicant submitted an EIA Scoping Report and a request for an EIA Scoping Opinion under Regulation 10 of the EIA Regulations to the Planning Inspectorate in February 2022. The EIA Scoping Report (see PEIR Volume 2: Appendix 2.1) was developed with reference to standard guidance and best practice and was informed by the EIA team's experience working on several other similar projects.
- 1.5.5 The Scoping Opinion was received from the Planning Inspectorate in March 2022 and is presented within PEIR (Volume 2: Appendix 2.2). The matters raised have been reviewed and taken into consideration in the relevant technical assessments.

2.0 The Site

2.1.1 The Site is a term that is used to describe the land required to deliver the components of the Proposed Development. The Site comprises of four different areas, which are broadly defined as follows:

- The Solar PV Site which are areas within the Site that are being considered for solar development, the onsite primary substation and associated infrastructure.
- Mitigation and Enhancement Areas; and
- Potential Highway Works Site which are areas beyond the Solar PV Site which are being considered for cable route connections and temporary/permanent improvements to existing highways to facilitate the construction and decommissioning of the Proposed Development.
- Grid Connection Corridor – Area within the Site that is being considered for the Grid Connection Cable between the Onsite Primary Substation and the National Grid Ryhall Substation and the new connection at National Grid Ryhall Substation

2.1.2 The Site equates to approximately 906ha. The Solar PV Site equates to approximately 463ha. The extents of the Site and the Solar PV Site are provided at Figure 1.

2.1.3 The Site falls within the administrative boundaries of Rutland County Council (RCC) and South Kesteven District Council (SKDC) and Lincolnshire County Council (LCC). The Grantham - Peterborough (East Coast Main Line) railway line dissects the Site on a general north-west to south-east alignment. The Solar PV Site is located to the immediate south, east and west of Essendine and approximately 700m north-east of Ryhall. The north-eastern most edge of Stamford is located approximately 1.4km south-west of the Solar PV Site at its nearest point. The centre of Peterborough is located approximately 16km south-east of the Solar PV Site.

- 2.1.4 The Solar PV Site and Mitigation and Enhancement Areas are, for the purposes of the EIA process, subdivided into a series of numbered fields. The plan showing the field number system is provided at Figure 2.
- 2.1.5 The Solar PV Site comprises 37 agricultural fields and blocks of non-ancient woodland. Hedges, trees and woodland form the boundaries to the fields within the Solar PV Site. There is a potential requirement for highways works between the Strategic Highway Network (SRN) and the Solar PV Site to facilitate construction traffic access.

Access

- 2.1.6 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 A6121 provides connection to the A1 via Stamford to the south-west of the Site and to the A15 via Bourne to the north-east of the Site. The B1176 segments the north-westernmost extent of the Solar PV Site and is routed on a general north-south direction between Little Bytham to the north and Ryhall to the south. The B1176 connects to the A6121 at Ryhall.
- 2.1.7 There are six Public Rights of Way (PRoW) which cross the Solar PV Site and Mitigation and Enhancement Areas. 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.

Water resources

- 2.1.8 The West Glen River (Environment Agency Waterbody ID: GB105031055510) runs through the Site on a general north-west to south-east alignment. A network of drains, ditches and streams, which follow field boundaries, are also present across the Solar PV Site and

Mitigation and Enhancement Areas. A small pond is located within the central-eastern area of the Solar PV Site (Field 31).

Ecology and biodiversity

- 2.1.9 The Solar PV Site and Mitigation and Enhancement Areas comprise 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 vegetation, and scrub are also present. Woodland across the Site consists of plantation and semi-natural broadleaved woodland. Ancient woodland is also present offsite, adjacent to the to the northern, southern and north-western Site boundaries.
- 2.1.10 There are four internationally designated sites and eight nationally designated sites within 10km of the Site, including: Ryhall Pasture and Little Warren Verges SSSI, Newell Wood SSSI, the Rutland Water SPA and Ramsar site.
- 2.1.11 A total of 98 non-statutory 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.

Cultural heritage

- 2.1.12 The Site is not subject to any statutory heritage designations.
- 2.1.13 There is one Scheduled Monument within proximity of the Solar PV Site, Essendine Castle, along with the Grade II* Listed Building Church of St Mary, which are located approximately 300m west the Solar PV Site boundary. A total of approximately forty designated heritage assets are located within a 1km study area around the solar PV Site and Mitigation and Enhancement Areas.

Air Quality

2.1.14 The Site is not located within an AQMA.

Ground conditions

2.1.15 3.9.1. British Geological Survey (BGS) mapping indicates that the Solar PV Site is underlain by sedimentary rocks of the Inferior Oolite Group to the north-west, overlain by the Great Oolite Group in the centre, which is overlain by Ancholme Group to the south-west.

3.0 Project Description

3.1 Introduction

3.1.1 This section provides a description of the Proposed Development. The physical characteristics of the Proposed Development are described alongside the proposed construction, operation and decommissioning activities that have informed each of the technical assessments included in the PEIR

3.1.2 The principal components of the Proposed Development comprise the following:

- PV modules;
- Mounting Structures;
- Inverters;
- Transformers;
- Switchgear;
- Primary Onsite Substation and Ancillary Buildings;
- Low Voltage Distribution Cables;
- Grid Connection Cables;
- Fencing, security and ancillary infrastructure;
- Access tracks; and
- Green infrastructure (GI).

- 3.1.3 An illustrative layout, which shows the areas that are being considered for the potential solar development, the substation and areas for mitigation and enhancement, is provided at Figure 3.

3.2 Scheme Design

- 3.2.1 The design of the Proposed Development is an iterative process, based on preliminary environmental assessments and consultation with statutory and non-statutory consultees.
- 3.2.2 The following sections provide a description of the different elements of the Proposed Development. Each environmental topic has assessed the design considered to be the likely worst-case scenario for that discipline to determine the potential for significant effects and identify suitable mitigation measures.

3.3 PV Arrays

- 3.3.1 The Proposed Development would consist of PV Modules placed on Mounting Structures arranged in rows (known as PV Tables). A group of PV Modules that connected to one another are known as 'PV Strings'. There are currently two options for the mounting structures which are being considered and assessed:

- Fixed South Facing (FSF) Arrays; and
- Single Axis Tracker (SAT) Arrays.

- 3.3.2 The Fixed South Facing Arrays would be up to 3.3m in height and the Single Axis Tracker Arrays would be up to 3.2m in height.

PV Module Mounting Structures

- 3.3.3 The frames upon which the PV Modules will be mounted will be pile driven or screw mounted into the ground to a maximum depth of 2.5m, 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.

3.4 Inverters

3.4.1 Inverters are required to convert the DC electricity collected by the PV Modules into alternating current (AC) which allows the electricity generated by the PV Modules to be exported to the National Grid.

3.4.2 There are two options for inverters:

- String Inverters - small enough to be mounted to the Mounting Structures underneath the PV Modules; or
- Central Container Inverter - typically be housed within a container or cabinet up to 3.2m in height

3.5 Transformers

3.5.1 Transformers are required to step up the voltage of the electricity generated by the PV Modules before it reaches the Primary Onsite Substation. Transformers are typically housed indoors within a container (either within the Central Container Inverter or a String Transformer container), and will be distributed throughout the Solar PV Site.

3.5.2 The height of the String Transformers will typically be up to 3m in height. Transformer cabins are typically externally finished in keeping with the prevailing surrounding environment, often utilising a green painted finish.

3.6 Switchgears

3.6.1 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.

- 3.6.2 Switchgears are typically housed indoors within a container and up to 3.2m in height.

3.7 Primary Onsite Substation and Ancillary Buildings

- 3.7.1 There will be a single Primary Onsite Substation (400/33KV) located near the National Grid Ryhall Substation. The Primary Onsite 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 Onsite Substation is also expected to include Ancillary Buildings which will include office space and welfare facilities as well as operational monitoring and maintenance equipment. The indicative size of the primary substation compound is 100m x 200m, with a maximum height of buildings being 12.5m that allows for the Primary Onsite Substation and associated electrical control buildings & workshop buildings and Site office, storage and welfare building.

3.8 Onsite Cabling

- 3.8.1 Low Voltage Distribution Cabling between PV Modules and the String Inverters will typically be located above ground level (along a row of PV Tables), fixed to the Mounting Structure, and then trenched underground between the PV Tables and String Transformer or Central Container Inverter (subject to which technology is chosen). Higher rated voltage cables (33kV) are required between the transformers and the Primary Onsite Substation. The 33kV cables will be buried underground in a trench. The routing of these cables has not yet been finalised, but it is anticipated that the 33kV cables will run alongside the internal access tracks to the access point onto the adopted highway. From that point the cables would either run within the adopted highway or would cross the adopted highway and run within the extents of the Solar PV Site or Mitigation and Enhancement Areas back to the Onsite Primary

Substation. The indicative locations of the crossing points over the adopted highway are shown on Figure 4.

- 3.8.2 Data cables will be required to allow for the monitoring during operation, such as the collection of data on the power of the sun. The data cables would typically be installed within the same trench and alongside the electrical cables.
- 3.8.3 The existing above ground powerlines across the Solar PV Site are not proposed to be altered by the Proposed Development.
- 3.8.4 Onsite cabling will be required to connect the PV Arrays located to the east of the East Coast Main Line to the Primary Onsite 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 5:
- Option 1 - cables would be run through the existing brick culverts underneath the East-Coast mainline;
 - Option 2 - Horizontal directional drilling (HDD) underneath the East Coast mainline; or
 - Option 3 - cables to be routed within the adopted highway along the A6121 and Uffington Lane.

3.9 Electricity Export and Point of Connection to the National Electricity Transmission System

- 3.9.1 The electricity generated by the Proposed Development is expected to be exported via a 400kV connection between the Primary Onsite Substation and the National Grid Ryhall substation at Uffington Lane which is a National Grid Electricity Transmission (NGET) substation. The grid connection cables will comprise three 400kV cables buried within a trench, up to 2m in depth. The cable connection route is expected to

cross under Uffington Lane and run alongside the existing access track to the National Grid Ryhall Substation.

- 3.9.2 The Grid Connection Route expected to be less than 350m from the Primary Onsite Substation to the National Grid Ryhall Substation.

3.10 Fencing, Security & Ancillary Infrastructure

- 3.10.1 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.
- 3.10.2 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 PV Arrays 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.
- 3.10.3 The lighting of the Primary Onsite 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, lighting sensors for security purposes will be implemented around the Primary Onsite Substation. Lightning protection masts will be up to 6m.

3.11 Site Access

- 3.11.1 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 National Grid Ryhall Substation, with vehicles approaching from the A6121 Stamford Road to the north. This point of access would provide access to the Primary Onsite Substation and control buildings.

3.11.2 Six potential secondary points of access have been identified 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.

3.11.3 A plan showing the preliminary locations of the primary and secondary access points is provided at Figure 6.

3.12 Access Tracks

3.12.1 It is anticipated that onsite access tracks will follow the alignment of the existing agricultural tracks, where possible, limiting the requirement for new tracks and drainage ditch crossings, disturbance to soils and habitat removal required access and circulate the Solar PV Site. New internal access tracks will be up to 3.5m wide, passing bays will be provided along the internal access tracks. The primary point of access into the Primary Onsite Substation will be 10.2m wide to facilitate two-way HGV traffic. The secondary points of access from the adopted highway will be up to 6.5m wide. The internal access tracks will likely be constructed of compacted stone with excavation kept to a minimum.

3.13 Green Infrastructure

3.13.1 The existing hedgerows, woodland, ditches, ponds and field margins will be retained, with the exception of small breaks and/or crossings required for new access tracks, security fencing and cable routes. The PV Arrays and associated security fencing have been set back from existing hedges by 10m and 15m from woodland. The access tracks and cable routes will be designed to use existing agricultural gateways/tracks

between the fields where possible. If small breaks or crossings are required, the width of these new breaks will be kept to a minimum.

- 3.13.2 The existing Public Rights of Way (ProW) that cross the Solar PV Site and Ecological Mitigation and Enhancement Areas will be retained and incorporated within multifunctional green corridors. Subject to the construction phasing and methodology there may be a requirement to temporarily divert or close a ProW for a period during the construction phase.
- 3.13.3 The Mitigation and Enhancement Areas as identified on Figure 1 will provide areas for green infrastructure, including the creation of wildflower grassland adjacent to the West Glen River and along the small valley in the north-west of the Site. The majority of the existing arable fields within the Mitigation and Enhancement Areas will continue to be farmed under arable rotation with additional measures to support skylarks. The Green Infrastructure Strategy within Mitigation and Enhancement Areas along with Solar PV Site will be used to deliver a minimum 10% net gain in biodiversity.

3.14 Construction

Construction Programme

- 3.14.1 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

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

- Site preparation;
- Solar farm construction;
- Testing and commissioning; and
- Reinstatement and habitat creation.

Construction Access

3.14.3 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.

3.14.4 The above proposed routes have been considered and discussed with National Highways and the local highway authorities, RCC and LCC, and whilst it is yet to be finalised it is proposed for HGVs to access the Solar PV Site from the SRN via Route 1, before departing the Solar PV Site to the SRN via Route 3.

- 3.14.5 The ES will provide the final 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.
- 3.14.6 It is anticipated that at the busiest stage of construction there could be 54 two-way HGV deliveries per day. In addition, there will be Light Goods Vehicle (LGV) movements associated with deliveries and construction worker arrivals and departures.
- 3.14.7 Typical construction vehicles will include excavators, ramming machines, cable layers, low loaders, crane and waste vehicles, trenchers, telehandlers, forklift trucks and tractors/trailers.
- 3.14.8 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.

Temporary Construction Compound

- 3.14.9 During the construction phase, a primary construction compound is expected to be located onsite with temporary secondary construction compound(s) provided at different locations throughout the Solar PV Site. The indicative locations of the primary and secondary construction compounds are shown on Figure 7, further details (including location, scale and duration) will be set out and described within the ES.

3.15 Construction Reinstatement and Habitat Creation

- 3.15.1 A programme of landscape and habitat reinstatement and creation will commence during the construction phase. It is anticipated that areas under the PV Arrays and the landscape buffers will be planted with a combination of native grassland mix, wildflower mixes, scrub and

hedgerows. Woodland blocks and belts will be planted in strategic locations to provide visual screening, ecological habitats in order to achieve a minimum 10% biodiversity net gain.

3.16 Construction Environmental Management

- 3.16.1 An Outline Construction Environmental Management Plan (oCEMP) will be submitted 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 process to be employed during 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 authority prior to construction. A draft oCEMP has been prepared for statutory consultation and is appended to the PEIR.

3.17 Construction Traffic Management

- 3.17.1 An Outline Construction Traffic Management Plan (oCTMP) including details on construction logistics and construction worker travel will be submitted in support of the DCO Application, which will guide the delivery of material, plant, equipment and staff during the construction phase. A draft oCTMP has been prepared for statutory consultation and is appended to the PEIR.

3.18 Operation

- 3.18.1 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. 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 removal of any infrastructure during the operation of the Proposed Development will be disposed of following the waste hierarchy,

with materials being reused or recycled wherever possible. Any electrical waste will be disposed in accordance with the Waste from Electrical and Electronic Equipment (WEEE) regulations, minimising the environmental impact of the replacement of any elements of the Proposed Development.

- 3.18.2 The land underneath and around the PV Arrays could be managed through a combination of sheep grazing and/or hay/silage production, or mechanical maintenance in order to maintain the field vegetation during the operational phase of the Proposed Development. An Outline Operational Environmental Management Plan (oOEMP) will be prepared and submitted in support of the DCO Application. The framework of an outline Landscape and Ecological Management Plan, which will be included with the oOEMP, has been provided for statutory consultation and is appended to the PEIR.

3.19 Decommissioning

- 3.19.1 The Applicant is not seeking a time limited consent. The operational life of the Proposed Development will not be specified within the DCO Application. However, it is recognised that the electrical infrastructure will have an operational lifespan, after which it will need to be replaced or removed. For the purposes of the assessing decommissioning with the EIA, it has been assumed that the Proposed Development has a 40-year operational life span and decommissioning is anticipated to take approximately six to twelve months. The Applicant will commit to decommissioning the Proposed Development when it ceases being operational; however, no time limit will be set for this.
- 3.19.2 It is anticipated that all the solar infrastructure including PV modules, mounting structures, cabling, inverters, transformers, switchgear, fencing and ancillary infrastructure would be removed and recycled or disposed of in accordance with good practice following the waste hierarchy, with

materials being reused or recycled wherever possible. All waste will be disposed of in accordance with the legislation at the time of decommissioning.

- 3.19.3 The future of the substation and control building would be agreed with 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 Decommissioning Environmental Management Plan (DEMP), to include timescales and transportation methods, would be agreed in advance with the local planning authority. The Solar PV Site would be reinstated, so far as possible, to its original use after decommissioning including the removal of any permissive paths and potential reversion of grassland underneath the PV Arrays to arable land. Any landscape structural planting, such as tree planting, hedgerows, scrub etc created to deliver biodiversity mitigation and enhancement associated with the Proposed Development that have potential to contain protected species would be left in-situ. An Outline Decommissioning Environmental Management Plan will be submitted in support of the DCO Application. A draft oDEMP, setting out the framework and principles, has been prepared for statutory consultation and is included as an appendix to the PEIR.

4.0 Alternatives and Design Development

4.1 Introduction

- 4.1.1 Considering the policy and legal requirements as well as the iterative approach to the design to date and feedback from the non-formal consultation undertaken in November 2021, the following alternatives

have been considered for the Proposed Development and discussed in this chapter:

- Alternative sites, size and scale;
- Alternative technologies; and
- Alternative layouts.

4.1.2 The consideration of ‘no development’ as an alternative to the Proposed Development has not been considered as a reasonable alternative as it would not deliver the proposed renewable electricity generation capacity which is required in order to meet the UK’s net zero targets.

4.2 Alternatives Considered

Alternative Sites

4.2.1 The Windel Energy considered several important factors before arriving at the preferred site. As solar schemes are not referred to directly in the current suite of NPS the Applicant has considered and referenced the site selection criteria referred to in draft NPS EN.

4.2.2 On this basis, the emphasis should be on maximising the use of available capacity at grid connections where they occur. Lincolnshire is a particularly suitable area for large scale solar projects for several reasons including:

- The existence of large areas of undeveloped land and a generally sparse settlement pattern, meaning that there is the opportunity to identify sites of sufficient scale to deliver meaningful contributions towards meeting net zero.
- A generally gently undulating topography, rather than land that is too steep or too flat.

- There are grid connections with capacity to connect into the National Grid. This is more likely in less populated areas with lower demand from business and homes.
- Agricultural Land Classification (ALC) varies depending on precise location, but there is a good supply of non best and most versatile land and where it is best and most versatile land it is generally Grade 2, rather than Grade 1 land.

4.2.3 This is not to say that large-scale solar sites will only be suitable in Lincolnshire – available capacity should be maximised wherever possible, however, Lincolnshire’s particularly topography and settlement pattern make it suitable for solar.

4.2.4 In summary, the availability of significant capacity at the Ryhall substation without the need for upgrading was the primary driver in identifying a site in this part of Lincolnshire. Given the urgent need for renewable energy to address the climate crisis, this available capacity should be utilised (and made the most of) where it occurs.

4.2.5 Following a review to identify which of the land in proximity to the substation may be appropriate for solar from a technical, environmental and community perspective, Windel Energy then commenced discussions with landowners to identify whether there was a willingness to enter into lease agreements. The Site is considered to be preferable compared to possible alternative areas further away from the substation for a number of reasons including the lack of availability of suitable and available previously developed land, relative distance from protected ecological and heritage assets (including Rutland Water SPA) compared to areas further west and south and comparably favourable ALC with limited levels of Grade 3a and 2 land. There are also relatively few residential properties in immediate proximity to the Site and the impact on those that are can be effectively mitigated through offsets and

sensitive landscaping. The Site is also well located in relation to the SRN, which will help to reduce the effects during construction.

Alternative Renewable Technologies

- 4.2.6 Alternative types of low-carbon forms of electricity generation for utilising the existing National Grid Ryhall Substation connection capacity were not considered by the Applicant. However, notwithstanding this, it is not considered that the Site would be suitable for other forms of renewable generation at the same scale of the Proposed Development. It is therefore considered that Solar Farm development is the best renewable generating solution for the Site.

Alternative Solar Technologies / Layouts

- 4.2.7 The parameters of the DCO Application will maintain a degree of flexibility to allow for the latest solar technology to be utilised at the time of construction. Notwithstanding this, technological design options have been considered and discounted. The main reasons for discounting the technological options are set out below:

Solar PV Configuration

- 4.2.8 East / West Solar PV Configuration – An East / West configuration was discounted because, in comparison to the Fixed South Facing or Single Access Tracking, this configuration reduces the potential to deliver biodiversity gain and / or utilise the space between the panels for grazing. The level of light reaching the ground beneath the panels would be significantly reduced due to the density and compactness of the east / west configuration. An East / West configuration over the same area would generate an increased number of the heavy goods vehicle (HGV) movements than Fixed South Facing or Single Access Tracking the East / West configuration allows for a greater number of modules to be installed per unit area.

Alternative Grid Connection Routes

- 4.2.9 No alternative grid connection corridors have been considered by the Applicant given the close proximity between the Onsite Primary Substation and National Grid Ryhall Substation. Any alternative route would unnecessarily increase the length of the grid connection cable and associated environmental impacts.

Alternative Layouts

- 4.2.10 The layout of the Proposed Development has evolved iteratively and will continue to evolve through the EIA and consultation process, taking into consideration the NPS, objectives of the Proposed Development, environmental effects, and feedback from stakeholders during the statutory consultation process.
- 4.2.11 To date the layout and extents of the solar arrays has undergone two design iterations.

Stage 1

- 4.2.12 Upon identification of the Site, the initial Solar PV Site boundary was identified based on the process outlined in 4.2.1 above. This area totalled approximately 880ha as shown on Figure 1. All available land within this boundary was then subject to an initial appraisal to identify suitability for solar PV development (i.e. to potentially accommodate solar PV arrays or enabling equipment as defined in section 5.2-5.15 below). The appraisal focused on the suitability of land parcels within the identified boundary for development, based on environmental, social and economic factors which are also reflected in the NPS. No designed layout was considered at this stage. However, minimum offsets to landscape and ecological features and designations, as described in table 5.13 below, were applied to inform the process. Following the initial appraisal, which included site visits and desktop analysis, identified

areas within the solar PV Site considered not suitable for accommodating solar PV arrays were removed for the following reasons:

- Setting of Essendine – the extent of solar development was pulled back and away from the settlement boundary of Essendine to reduce potential landscape and visual impacts as well as impacts to the setting of Essendine Castle Scheduled Monument.
- Setting of Braceborough – The land to the east of the Site was removed because of the potential impacts on the landscape character and the proximity to the Braceborough conservation area.
- Braceborough Great Wood – the fields located to the north of Carlby Road due to their proximity to the ancient woodland and the existing PRoW that traverse through the centre of the fields.
- Burghley House – Two fields in the south-west of the Site were removed due to the potential theoretical visibility from Burghley House as the two fields are located on land that slopes towards the River Welland valley and Burghley House to the south.
- Little Warren Wood and Ryhall Pastures and Little Warren Verges SSSI – An opportunity was identified to improve connectivity between Little Warren Wood and Ryhall Pastures and Little Warren Verges SSSI. The extents of solar infrastructure was set back from the northern boundary to reflect the offset to arable on the northern side of the ditch that runs through this part of the Site. This area will be used to improve green infrastructure connectivity with the SSSI, which is located outside of the Site.
- Primary onsite substation – the location of the Onsite Primary Substation was chosen due to its proximity to the existing National Grid Ryhall Substation, minimising the disruption of the export cable route. The location is also separated from Essendine by the East Coast Mainline, and other clusters of properties and public rights of way.

- Retention of existing green infrastructure features – an early design principle was to retain all existing woodland blocks, hedgerows and ditches within the Site so to reduce potential impacts on protected species and integrate the layout into the fabric of the existing landscape pattern and character.

4.2.13 Following removal of the areas described above, the remaining area for that could potentially accommodate solar PV arrays was approximately 570ha. The removed areas were retained in the Site as Mitigation and Enhancement Areas to potentially provide ecological mitigation and green infrastructure for example, areas for existing habitats, new planting, access and routes for Low Voltage Distribution Cables.

4.2.14 A Stage 1 Concept Masterplan was developed for the purpose of stage 1 (informal) consultation (see Figure 3 of this document).

Stage 2

4.2.15 Following informal consultation in November 2021, the Stage 1 masterplan has been reviewed in light of the comments received from stakeholders and further analysis of baseline information. The following changes have been made to the extents of the Solar PV Site:

- Grade 2 Agricultural Land – following the completion of the agricultural land classification survey, fields that were identified as consisting entirely of Grade 2 land have been removed from solar development.
- Residential Amenity – Following feedback from the Stage 1 consultation and further Site visits, areas of the Site have been removed due a combination of potential residential amenity impacts and landscape and visual impacts. The extent of removal was reviewed at each individual location, with a suitable set back reflecting existing or historic landscape boundaries or features.

- West Glen River – Areas for potential solar development have been removed along the West Glen River corridor in order to remove the majority of PV Arrays from the flood plain. This has also provided the opportunity to reduce any potential impacts on protected species using the river corridor and provide ecological habitat enhancement.
- Access Strategy – the access strategy has been consolidated so to use one point of access from the highway network per block of land given a total of 7 accesses subject to additional environmental work to take place before the DCO Application, rather than use multiple access points. This will minimise disruption on the existing road network during the construction phase as well as minimising potential direct impacts on Local Wildlife Sites (LWS) and SSSIs.

4.2.16 After the removal of the areas described above the proposed area for PV Arrays is approximately 463ha (see Figure 1). The removed areas were retained in the Site as Mitigation and Enhancement Areas to potentially provide ecological mitigation, green infrastructure opportunities, access and routes for Low Voltage Distribution Cables.

4.2.17 Following the Statutory Consultation, the project team will review feedback from all the stakeholders and feed this into the design review process prior to fixing the design parameters for the purposes of the preparation of the Environmental Statement and DCO Application.

5.0 Preliminary Environmental Assessment

5.1 Introduction

5.1.1 Under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, 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...*".

Taking into account the criteria listed in Schedule 3 of the EIA Regulations, 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 it constitutes EIA Development, and the Applicant will therefore undertake an EIA and provide an ES in support of the DCO Application.

- 5.1.2 The EIA considers impacts during the construction, operation and decommissioning of the project. In order to preliminarily identify the likely significant effects of the project on the environment, an understanding of the environment that would be affected by the project (the 'baseline conditions') has been established through desk-based research, site surveys and engagement with stakeholders. The baseline conditions are not necessarily the same as those that exist at the current time; they are also the conditions (referred to as future baseline) that would exist in the absence of the project either at the time that construction is expected to start, or the time that the project is expected to open to traffic.
- 5.1.3 Potential environmental effects of the project have been identified through a process by which the sensitivity of the receptor, and the level and type of change are considered to determine the significance of effect.
- 5.1.4 Mitigation measures have been developed through the project and embedded into the design and layout of the Proposed Development, referred to as embedded mitigation (or primary mitigation).
- 5.1.5 The embedded mitigation measures include the Green Infrastructure Strategy within Mitigation and Enhancement Areas. The embedded mitigation measures have been considered as part of the preliminary assessment, when considering the potential effects of the Proposed Development.
- 5.1.6 The following management plans will be developed and prepared to be submitted to support the DCO Application:

- Outline Construction Environmental Management Plan (oCEMP);
- Outline Construction Traffic Management Plan (oCTMP) and Framework Travel Plan;
- Outline Operational Environmental Management Plan including an Outline Landscape Ecological Management Plan (oLEMP);
- Outline Excavated Materials management Plan;
- Outline Decommissioning Environmental Management Plan (oDEMP); and
- Outline Skills, Supply Chain and Employment Management Plan

5.1.7 Mitigation measures are being 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 and stakeholder feedback.

5.1.8 The potential effects presented in the environmental topics below take into account primary (embedded design measures) and tertiary mitigation (best practice measures set out in the oCEMP, oLEMP, oDEMP and other environmental management plans). The residual effects summarised at the end of each section take into account secondary mitigation (additional mitigation identified to ameliorate significant adverse effects).

5.2 Chapter 6: Landscape and Visual

5.2.1 This chapter considers the potential effects generated by the Solar PV Site aspect of the Proposed Development during construction, operation and decommissioning in relation to Landscape and Visual. Potential effects associated with the highway works have been scoped out as no likely significant effects are anticipated.

What might be affected?

5.2.2 The Solar PV Site occupies an agricultural landscape, of gently undulating terrain 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.

5.2.3 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 Solar PV Site.

5.2.4 The Solar PV Site does not lie within any national landscape designations. Two local designations identified in the old 2001 Rutland Local Plan policy are located approximately 1km west of the solar PV Site, including an 'Area of Particularly Attractive Countryside', and an 'Area of Local Landscape Value', although it is important to note that these designations are not retained in the adopted Local Development Framework planning policy and have been used to aid preliminary judgements and inform design development.

What are the effects?

5.2.5 The potential for significant adverse effects to landscape character would be limited to extent of the Solar PV Site and local context (up to 500m from the Solar PV Site boundary) for the two local landscape character areas (Rutland Plateau D(ii) Clay Woodlands and Kestevan Uplands) where there would be Major-Moderate adverse effects. Beyond the extent of the Solar PV Site and its immediate context, the effects on the wider landscape character are likely to reduce quickly with distance, and are likely to be minimal and not significant. Other landscape character areas within the 2km study area due to distance from the Solar PV Site are unlikely to experience any significant adverse effects greater than Minimal significance which are not significant.

- 5.2.6 Visual effects arising from the Proposed Development, are likely to be confined to within 500m south, west and north and limited to visual receptor groups located within or in close proximity to the Solar PV Site. Visual effects would be greatest within the Solar PV Site (Major-Moderate) which are significant however these would reduce over time as the proposed vegetation matures and provides further visual screening.
- 5.2.7 For other visual receptor groups beyond the Solar PV Site impacts range from Moderate significance reducing to Minimal (which are not significant), with all effects reducing over time as new planting matures and provides further visual screening.
- 5.2.8 Views from PRow outside of the Site would change from views over open fields to views along GI corridors that simultaneously function to improve the landscape fabric by introducing new and enhanced hedgerows and tree belts. Adverse effects would be minimal and not significant.

5.3 Chapter 7: Ecology and Biodiversity

- 5.3.1 This chapter considers the potential effects generated by the Proposed Development during construction, operation and decommissioning in relation to Ecology and Biodiversity.

What might be affected?

- 5.3.2 Four international designated sites are present within 10km of the Site, the Rutland Water Special Protection Area (SPA) and Ramsar Site, which are located approximately 4.8km to the south-west of the Site, but 8.65 km from the Solar PV Site. Baston Fen SAC is located 4.46 km north-east of the Site, Grimethorpe SAC is located 4.67 km north of the Site and Barnack Hills and Holes SAC is located 6.8 km south of the Site.

5.3.3 No internationally important sites designated for bats are present within 30km of the Site. Eight Sites of Special Scientific Interest (SSSI) are present within 2km of the Site. Nine Local Wildlife Sites are located wholly or in part within the Site.

5.3.4 The Solar PV Site consists of a number habitats including:

- Arable farmland;
- Areas of improved grassland;
- Areas of species-poor, semi-improved grassland;
- Multiple parcels of woodland distributed, some of which are semi-natural broadleaved woodland;
- Parcels of onsite broadleaved plantation woodland;
- A former railway embankment which features dense mixed scrub of comparative high species richness;
- Native hedgerows;
- Eight onsite ponds or on the Site boundary;
- The West Glen River, a natural river channel dominated by marginal vegetation;
- A mixture of dry and wet field ditches;
- Small pockets of tall ruderal vegetation; and
- Small areas of bare ground, scattered trees and hard standing.

What are the effects?

5.3.5 During all phases no direct adverse effects to designated sites are considered likely. Details regarding the proposed highway and cabling routes are still being developed and may affect the designated sites adjacent to the Site through required excavation works and/or highway access improvements. As the design progresses, opportunities to embed mitigation into the Proposed Development in order to avoid and minimise direct impact will be explored. Any works to SSSIs will be agreed in advance with Natural England and appropriate measures for restoration

included. Similarly, impacts to Local Wildlife Sites will be mitigated for with appropriate reinstatement of the existing habitats. Due to anticipated levels of traffic movements and construction works no effects on the SSSIs are likely to occur as a result of noise or air pollution. With the implementation of the CEMP and DEMP and avoidance the statutory and non-statutory designated sites within or adjacent to the Site, the Proposed Development would have the potential for adverse effects at the Site level, which is not significant. No adverse effects are anticipated on statutory designated sites not within or adjacent to the Site. Adverse effects on non-statutory sites would be negligible.

- 5.3.6 The only substantial loss of habitats will be as a result of arable land, which is of Site value, being replaced with PV Arrays and associated infrastructure. Where arable land is replaced with hard standing, this represents a minor loss in terms of ecological value and extent and is likely to be an adverse effect of significance at a Site level only which is not significant. Permanent grassland underneath the PV Arrays and wildflower grassland in other areas will be delivered as part of the Proposed Development, which is likely to be an overall beneficial effect at a District level and not significant.
- 5.3.7 . With the implementation of the CEMP and DEMP the risk of accidental damage to retained habitats onsite during the construction and decommissioning phases would result in adverse effects at the Site level only, which is not significant.
- 5.3.8 During the operational phase, the onsite habitats will be managed in accordance with a Landscape and Ecology Management Plan (LEMP). No additional effects therefore will arise during the operational phase.

- 5.3.9 Offsite ancient and ancient replanted woodland will not be subject to any direct effects and appropriate stand offs have been incorporated into the design.
- 5.3.10 The Proposed Development will not remove any trees or buildings suitable for roosting bats, hedgerows or other linear features (with the exception of small breaks which would remain unlit) used by commuting or foraging bats. With the implementation of the CEMP and DEMP to avoid accidental damage to roost features, adverse effects would be limited to the Site level and not significant on roosting bats. Due to the implementation of the LEMP, a beneficial effect at the District level is anticipated for foraging bats, which is not significant.
- 5.3.11 Updated badger surveys will be carried out prior to the start of the construction and decommissioning phases to identify any additional setts present within or adjacent to the working areas. The number of badger setts to be closed prior to construction will be limited and priority for retention will be given to main setts. With the implementation of the CEMP and DEMP and use of licences where required, there would be a potential adverse effect at the Site level on badger setts during construction and decommissioning which is not significant.
- 5.3.12 Suitable gaps (indicatively 30 x 30cm) will be incorporated into all lengths of security fencing to allow badgers to pass beneath. The habitat creation and enhancements will likely increase the amount of foraging habitat for badgers, including the extent of grassland beneath the PV Arrays (a more favourable habitat for foraging than arable land), resulting in a beneficial effect of significance at up to District level, which is not significant.
- 5.3.13 The retention of the West Glen River and associated habitats with the implementation of the CEMP and DEMP will ensure that adverse effects

on water vole and otter during construction and decommissioning would be limited to the Site level, which is not significant.

- 5.3.14 With the implementation of the CEMP and DEMP the potential for adverse effects on Hazel dormouse and other mammals during construction and decommissioning would be limited to the Site level and not significant. During operation, direct impact to this species will be avoided as management of new and retained habitats will be carried out in accordance with the LEMP. Habitat creation within the buffer zones between retained hedgerows and/or ditches and the security fencing surrounding the PV Arrays will likely result in a beneficial effect on Hazel dormouse at Site level, which is not significant.
- 5.3.15 During construction and decommissioning the potential for adverse effects on breeding birds would be limited to the Site level which is not significant. The hedgerow, scrub and woodland will be retained and enhanced by providing supporting habitat such as diverse grassland and additional scrub or hedgerow. Therefore, during operation, breeding birds would experience beneficial effects at the District level which is not significant.
- 5.3.16 It is likely there will be a loss of a number of skylark territories as a result of the installation of the PV Arrays. With the provision of skylark breeding plots delivered through the LEMP this would be limited to an adverse effect at the Site level, which is not significant.
- 5.3.17 Yellow wagtail may be affected by the Proposed Development. However, they are present in very low numbers and the adverse effect would be limited to at the Site level only, which is not significant.
- 5.3.18 During construction and decommissioning reptiles and amphibians would be subject to adverse effects at the Site level, which is not significant.

- 5.3.19 During operation the Proposed Development will likely increase the availability and quality of habitat for reptiles (delivered through the LEMP), resulting in a beneficial effect at the Site level, which is not significant.
- 5.3.20 Adverse effects as a result of injury to individual protected species (great crested newt) during the construction and decommissioning phases are highly unlikely. Further surveys to confirm the presence or likely absence of great crested newts will be undertaken to inform the mitigation strategy. The removal of the grassland under the Solar PV Arrays at the decommissioning phase is highly unlikely to have an adverse effect on any amphibians, and is likely to represent, at worst, a return to the pre-development baseline conditions. Small scale removal of habitat to enable the removal of infrastructure may result in an adverse effect of significance a Site level only.
- 5.3.21 At the operational phase, the Proposed Development will result in the retention of breeding habitat and provide an increase in suitable terrestrial habitat. Therefore, with regard to amphibians, there is likely to be a beneficial effect of significance at up to a District level.

5.4 Chapter 8: Cultural Heritage and Archaeology

- 5.4.1 This chapter considers the potential effects of the Proposed Development during construction, operation and decommissioning on cultural heritage resources, encompassing archaeological remains, built heritage and historic landscape.

What might be affected?

- 5.4.2 Archaeological remains dating to the prehistoric period are in abundance within the Solar PV Site and its surrounding area. This is attested by the presence of the findspots, monuments and former settlement activity, as

well as multiple areas of activity identified on the geophysical survey of the Site.

- 5.4.3 Known recorded early medieval archaeological remains within the Solar PV Site and Mitigation and Enhancement Areas comprise findspots of pottery sherds and a complete pot recovered from the Site.
- 5.4.4 The Solar PV Site appears to have been predominantly under agricultural use throughout the post-medieval and modern periods, with any associated archaeological remains being of probable negligible value.
- 5.4.5 No designated heritage assets comprising Listed Buildings, Conservation Areas, Scheduled Monuments or Registered Parks are located within the Site.
- 5.4.6 Essendine Castle Scheduled Monument is located approximately 75m to the west of the Site and 300m east of the Solar PV Site.
- 5.4.7 A total of approximately forty designated heritage assets are located within a 1km study area around Site. These comprise two Grade I Listed Buildings, one Grade II* Listed Building, and thirty-seven Grade II Listed Buildings. The closest designated heritage assets are the Grade II* Listed Building Church of St Mary approximately 80m to the west of the Site and associated with Essendine Castle; and Grade II Listed Banthorpe Lodge approximately 180m to the north-west of Site.
- 5.4.8 The Ryhall Conservation Area is located within the 1km study area, located approximately 820m to the south-west of the Site.
- 5.4.9 There are two Registered Parks and Gardens (RPGs) within the 1km Study Area, comprising the Grade II Greatford Hall (also encompassing a Conservation Area), located approximately 600m to the east, and the Grade II Uffington Park, which is located approximately 650m to the

south. 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.

What are the effects?

- 5.4.10 The Proposed Development has the potential to affect buried archaeological remains during construction work that disturbs the ground and to the experience of built heritage assets and historic landscape features via changes to the character of their setting.
- 5.4.11 The construction groundworks have the potential to physically impact upon any surviving buried archaeological remains. The excavation of trenches for the low voltage distribution or grid connection cables, access tracks, temporary compounds and the foundations for the Solar Stations, have the potential to result in the damage to or loss of buried archaeological remains which may be present within their footprint. With archaeological investigation and avoiding particularly sensitive locations with non-ground disturbing techniques, adverse effects are considered to be minor adverse and not significant.
- 5.4.12 The installation of the Mounting Structures (set upon piles) will involve very minimal disturbance of the subsoil. Should a pile location (or even several pile locations) coincide with buried archaeological remains, the quantity of displaced archaeological remains in the case of larger features, such as the in-filled ditches, would be insignificant compared to that left undisturbed. For discrete or less robust buried features such as pits, post holes or stake holes, the probability that piles would be aligned in such a way that any more than a tiny percentage of the features would be affected is very low, and complete avoidance is the most likely outcome. It is considered at this stage that the impact on buried archaeology due to piling would be negligible at worst which is not significant.

- 5.4.13 The Proposed Development would change the character of land parcels lying within the wider and peripheral setting of several Listed Buildings, Conservation Areas, RPGs and Scheduled Monuments. The preliminary assessment of the form of the Proposed Development and its distance from any of these heritage assets suggests that no material views or experiences of them would be changed with the retention of existing hedgerows/woodland and implementation of landscape screening.
- 5.4.14 During operation the removal of the Solar PV Site from arable use and the temporary cessation of ploughing would prevent any further degradation of buried remains and result in a minor beneficial effect.

5.5 Chapter 9: Access and Highways

- 5.5.1 This chapter considers the potential effects generated by the Proposed Development during construction and decommissioning in relation to Access and Highways. Decommissioning has not been assessed separately as it is assumed that the decommissioning phase will be no worse than the construction phase. Potential effects during operation have been scoped out of the assessment as no likely significant effects are anticipated on the basis of the low numbers of anticipated staff vehicle movements.

What would be affected?

- 5.5.2 A total of three routes to the primary construction compound for construction traffic were identified within the initial feasibility review:
- Route 1 proposes to access the Solar PV Site from the A1 in the west 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 east and the junction of the A47 with the A15 at Peterborough. Vehicles will travel via the A15, the A1175 Main Road, Uffington Road via Stamford,

before joining onto the A6121 Ryhall Road and the A6121 Essendine Road.

- Route 3 proposes to access the Solar PV Site via the junction of the A47 with the A15 from the east, before travelling via Bourne (A15) and Raymond Mays Way (south of Bourne), before finally joining onto the A6121 Stamford Road.

5.5.3 Whilst it is yet to be finalised it is proposed for HGVs to access the Solar PV Site from the SRN via Route 1 before departing the Solar PV Site to the SRN via Route 3.

5.5.4 The table below sets out the roads (links) that form these routes and are considered in the assessment.

Route	Link	Link Name
1	1	Uffington Lane (Main Compound Access)
	2	A6121 Stamford Road
	3	A6121 Turnpike Road
	4	Ryhall Road East
	5	Ryhall Road West
	6	B1081 Old Great North Road
2	7	A6121 Ryhall Road (bridge)
	8	A6121 Ryhall Road
	9	Uffington Road
	10	A1175 Main Road
	11	A1175 Stamford Road
3	12	A15 (south of A1175)

Route	Link	Link Name
	13	A15 (west of Peterborough)
	14	A6121 Bourne Road
	15	A6121 Stamford Road (Carlby)
	16	A6121 Stamford Road (Toft)
	17	Raymond Mays Way
	19	A15 (Northorpe Main Road)

5.5.5 There are four Public Rights of Way (PRoW) that pass either through or alongside the boundaries of the Solar PV Site. There are no on or off-road cycling facilities within the immediate vicinity of the Site.

5.5.6 With respect to equestrians, there are two bridleways located within the Solar PV Site.

What are the effects?

5.5.7 The assessment methodology for predicting the volume of construction traffic trip rates has been discussed and agreed with stakeholders. These trip rates have been generated by comparing the number of PV modules and associated construction vehicles at a comparable recent Nationally Significant Infrastructure Project (NSIP). These trip rates have then been applied to the existing traffic flows along the roads within the study area to establish the percentage change in daily annual average daily traffic, and the total number of daily Heavy Goods Vehicles (HGVs).

5.5.8 With the exception of Uffington Lane, the construction phase of the Proposed Development will result in an increase of up to 2% of the daily annual average daily traffic, and up to 5% increase in the total number of daily Heavy Goods Vehicles (HGVs) along Ryhall Road.

- 5.5.9 Along Uffington Lane, there is anticipated to be an increase of 41% in the total annual average daily traffic and a 111% increase in the total number of HGVs. However, this is due to the Uffington Lane having very low levels of existing traffic and the link serving as the proposed primary construction compound access.
- 5.5.10 The following assessment takes into account the implementation of the oCTMP and oDTMP.
- 5.5.11 It is considered that there are a minimal number of pedestrian desire lines across Uffington Lane, meaning the change in severance will not be significant. Therefore, even when considering the impact on Uffington Lane, the effect on severance is likely to remain non-significant overall.
- 5.5.12 It is considered that the uplift on the al the roads (links) within the study area, with the exception of Uffington Lane, would fall well within the typical levels of daily traffic fluctuation on the highway network. In addition, there will be a non-significant traffic impact on the morning and evening peak hours, when the local road network is generally the most congested.
- 5.5.13 With respect to Uffington Lane, whilst the uplift in traffic flows may result in more driver delay than at present, it is not considered that this will be significant due to the low volumes of existing traffic and minimal delay that takes place at present. On that basis, it is considered that the construction phase of the Proposed Development will have a non-significant effect on driver delay.
- 5.5.14 There are a minimal number of pedestrian and cyclist desire lines across the roads (links) within the study area, and within the Local Road Network (LRN) as a whole. The construction phase of the Proposed Development will result in a change of well below the quarter threshold recommended within the industry guidance for pedestrian delay with a

maximum increase of 2% on Ryhall Road (excluding Link Uffington Lane).

- 5.5.15 Whilst the increase on Uffington Lane exceeds this threshold, there are no key desire lines or provisions for pedestrians or cyclists across this link. As such, the effect of the increase will be negligible and non-significant on pedestrian and cyclist delay.
- 5.5.16 Whilst there may be some associated recreational use of this link by pedestrians and cyclists, it is likely that this would be on an ad-hoc basis and outside of the typical proposed construction site working hours, as well as being influenced by other factors such as time of year and weather. On that basis, it is considered that the construction phase of the Proposed Development will have a non-significant effect on Pedestrian and Cyclist Amenity overall.
- 5.5.17 Due to the rural nature of the Site, the majority of the LRN does not benefit from any footway provision, meaning pedestrians are not segregated from traffic. However, the volume of pedestrians using the LRN is also considered to be low (subject to further discussions with stakeholders), with the majority of pedestrian trips likely associated with recreational activity and are likely taking place outside of times where construction traffic from the Proposed Development would be operational.
- 5.5.18 As the construction phase of the Proposed Development will lead to a negligible increase across the majority of the LRN (excluding Uffington Lane), the assessment methodology suggests this will lead to a non-significant effect on Fear and Intimidation overall.
- 5.5.19 Across Uffington Lane, there is anticipated to be an increase of 41% in the total annual average daily traffic and a 111% increase in the total

number of HGVs. However, this is due to the Uffington Lane having very low levels of existing traffic

- 5.5.20 It is considered that as there are minimal desire lines across Uffington Lane and fewer receptors to impact and cause any perceived changes in Fear and Intimidation. On that basis, any potential change in Fear and Intimidation on Uffington Lane would be non-significant.
- 5.5.21 Construction traffic would only access the Solar PV Site via the proposed construction traffic routes and access and will consequently avoid using inappropriate roads or other part so the network that have identified constraints. On that basis, and using professional judgement, it is considered that the construction phase of the Proposed Development would have a non-significant effect on Accidents and Safety.
- 5.5.22 Analysis of the LRN 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. On that basis, the construction phase of the Proposed Development in relation to the use of Hazardous Loads is considered to result in a non-significant effect.

5.6 Chapter 10: Noise and Vibration

- 5.6.1 This chapter considers the potential effects of the Proposed Development during construction, operation and decommissioning in relation to noise and vibration including construction traffic travelling to and from the Site, onsite construction noise and noise associated with the operation of electrical and mechanical infrastructure during the operational phase.
- 5.6.2 Operational traffic would be very limited and associated impacts have been scoped out as agreed with the Planning Inspectorate (PINS). The

Proposed Development would generate non-significant levels of vibration during operation and therefore this was also scoped out as agreed with PINS.

What might be affected?

- 5.6.3 Residential properties are considered to be sensitive to noise and vibration and have been considered in detail in this chapter. Commercial and industrial receptors are considered to have a low or negligible sensitivity to noise.
- 5.6.4 The baseline noise environment was observed to be varied but typical of the rural location of the Site, with a range of natural noise sources and a varying influence of road traffic.
- 5.6.5 In the day-time, low background noise levels could be typically experienced at properties neighbouring the Solar PV Site, with higher noise levels at locations exposed to traffic noise on roads carrying higher traffic such the A6121 or, to a lesser extent, the B1176. During quieter evening periods, levels measured at the fixed positions tended to decrease as activity levels decreased.

What are the effects?

- 5.6.6 The following assessment of construction and decommissioning effects takes into account the implementation of the oCEMP and oDEMP which includes the restriction of working hours, localised screening and good practice management of construction activities.
- 5.6.7 For receptors located at less than 100m from the Solar PV Site increased construction noise levels could be experienced during earth works. Piling of the Mounting Structure support structures would potentially generate similar levels for these properties if percussive piling

were used, but this would only be for a very brief period with the activity moving further away rapidly.

- 5.6.8 Whilst this represents a potential for medium construction noise magnitude if these activities were ongoing for extended periods, the construction activities will move more than 100m from each of the properties concerned within a period of a few weeks at most, and therefore the associated levels would last less than one month. For the majority of the construction period, works would be undertaken at distances of 200m and more from the properties, corresponding to reduced levels noise levels. When accounting for the short duration of the worst-case impacts, and the reduced magnitude of change when work would be undertaken further away, these activities are considered a low magnitude of change and therefore minor effects which are not significant.
- 5.6.9 Specific construction activities associated with cable laying (e.g. HDD) could be required outside of the assumed day-time construction hours (i.e. evening, Sundays, Bank Holidays or at night). For the closest receptors to the south or east of the Site, the provision of acoustic screening around the plant would ensure that the corresponding worst-case noise levels would represent a minor impact which is not significant.
- 5.6.10 Some of the construction activities, such as piling operations, drilling or vibratory rolling techniques, can generate vibration levels in close proximity to their use. The proposed HDD drilling would be undertaken at such a distance from the nearest sensitive receptors that the associated vibration levels would be negligible. Percussive piling at distances of 40-50m from Green Lane Farm could generate worst-case Peak Particle Velocity (PPV) levels that would be potentially just noticeable but not significant. Similarly, vibratory ground compaction, if used, would generate levels corresponding to effect that are not significant.

- 5.6.11 In terms of noise generated by construction traffic, a very low increase in noise levels is predicted. For the primary construction compound access on Uffington Lane, the relative increase in traffic would be higher but the absolute level of traffic remains very low, and no noise-sensitive receptors are located alongside this road. This therefore corresponds to a negligible effect which is not significant.
- 5.6.12 Decommissioning is likely to involve activities of similar or reduced intensity as for the construction phase and therefore result in comparable noise and vibration effects in the most part. However, HDD or piling are unlikely to be required for this phase. The corresponding impacts would therefore minor and not significant.
- 5.6.13 During operation the main potential source of noise is the Primary Onsite Substation, which would typically include one large transformer as well as other voltage regulation electrical plant which can generate noise in operation, including a tonal character. As the proposed location for this equipment is more than 600m from the nearest noise-sensitive receptors, the associated levels of operational noise from this facility result in a low impact. This noise level would, however, be above those experienced during very quiet periods (for example at night) but would remain low in absolute terms such that that they correspond to a minor effect which is not significant.
- 5.6.14 An initial assessment suggests that for properties located within 100m of the Solar PV Site an increase could be experienced if the main sources of noise identified were placed on the closest edge of the Solar PV Site to these properties. This would potentially represent a medium to high magnitude of impact in the absence of further mitigation. In contrast, at distances of 200m or more from the main noise-generating plant items identified noise levels would correspond to a low magnitude of change.

- 5.6.15 With the implementation of mitigation measures such as micro siting in the final design, selection of electrical plant, attenuation and/or screening if required, adverse effects would be limited to minor and not significant.

5.7 Chapter 11: Air Quality

- 5.7.1 This chapter considers the potential effects which would be generated by the Proposed Development associated with the construction phase of the Proposed Development.
- 5.7.2 It is not anticipated that there are any potential likely significant environmental effects generated by the operational phase of the Proposed Development as traffic is expected to be very limited and as such, associated impacts have been scoped out of assessment.
- 5.7.3 Given the anticipated lifetime of the Proposed Development it is expected that at the point of decommissioning, with improvements in vehicle technology and policy shifts towards low emission vehicles, there will be no likely significant effects to air quality and as such this has been scoped out as agreed with the Planning Inspectorate.

What might be affected?

- 5.7.4 Existing sensitive receptors at the roadside of the three proposed construction traffic routes have the potential to be impacted by the potential increase in emissions (nitrogen dioxide (NO₂) and particulate matter (PM₁₀ and PM_{2.5})) from construction traffic for the duration of the construction phase.
- 5.7.5 High sensitivity receptors include residences, healthcare and childcare facilities located along the proposed construction routes. Commercial and industrial uses are a consideration; however, they are considered to be low sensitivity receptors.

5.7.6 The Site is not located within an Air Quality Management Area (AQMA). The nearest AQMA (no.6 AQMA) is located approximately 25km north-west of the Site in Grantham.

5.7.7 On proposed construction Route 2, there are two potentially sensitive ecological sites which are located within 200m of the roadside.

What are the effects?

5.7.8 The impacts of vehicle emissions (NO₂, PM10 and PM2.5) during construction and decommissioning have the potential to affect existing sensitive receptors located at the roadside of the proposed construction routes. Given the predicted construction traffic and implementation of the CEMP and CTMP, any air quality effects on sensitive residential and commercial receptors are expected to be negligible and not significant.

5.7.9 The Environmental Protection UK / Institute of Air Quality Management guidance sets out thresholds for traffic generation at which point a detailed assessment of road traffic impacts should be undertaken. Detailed air modelling has not been undertaken as the Proposed Development is predicted to generate traffic flows significantly below these thresholds which are set out below:

- Change of LDV flows of more than 500 annual average daily traffic;
and
- Change of heavy-duty vehicles (HDV) flows of more than 100 annual average daily traffic

5.7.10 With regard to the impact on sensitive ecological receptors, the predicted construction and operation traffic is well below industry guidance thresholds (an increase greater than 1,000 vehicles per day) and as such no significant adverse effects are anticipated.

5.8 Chapter 12: Water Resources and Ground Conditions

- 5.8.1 This chapter considers the potential effects generated by the Proposed Development during construction, operation and decommissioning in relation to Water Resources and Ground Conditions.

What might be affected?

- 5.8.2 British Geological Survey mapping indicates that the Site is underlain by sedimentary rocks of the Inferior Oolite Group to the north-west, overlain by the Great Oolite Group in the centre, which is overlain by Ancholme Group to the south-west.
- 5.8.3 British Geological Survey superficial data does not record superficial deposits across a majority of the Site; however, where superficial deposits are present, they comprise areas of Alluvium - clay, silt, sand and gravel, and areas of river terrace deposits – sand and gravel. Furthermore, there are areas of head – clay, silt, sand and gravel, and glaciofluvial deposits of mid Pleistocene sand and gravel.
- 5.8.4 Desk studies have highlighted that no active landfill sites are present within the Site; however, industrial works (Essendine Industrial Estate) and transport infrastructure (the East Coast Mainline Railway) and associated machinery which are both present within the Site and may give rise to isolated areas of contamination.
- 5.8.5 Historic mapping indicates the presence of several former gravel pits and two former landfill sites within the southern area of the Site. Historical mapping also indicates that the central Site area is located on land that was used for the quarrying of sand and clay. Similarly, there are several disused gravel and stone pits in the northern extent of the Site which is also in close proximity to areas of landfilling with the potential for contamination which could migrate to the Site.

- 5.8.6 The East Coast Mainline railway line bisects the Site in a northwest to southeast orientation, while remnants of the dismantled Great Northern Railway - Essendine and Bourne Branch remain within the northern area of the Site.
- 5.8.7 The Site is recorded as being within Intermediate and Higher probability radon area where radon protective measures are necessary in the construction of any new buildings
- 5.8.8 The north-west extent of the Site is underlain by a 'highly productive aquifer', the centre of the Site is underlain by 'moderately productive aquifer' and the eastern extent of the Site is underlain by 'rocks with essentially no groundwater'.
- 5.8.9 The Site lies within a Drinking Water Safeguard Zone for surface water.
- 5.8.10 The Site overlies the groundwater body Welland Mid Jurassic Unit waterbody which has an overall status of 'Good'. The groundwater bodies Welland Limestone Unit A is located to the east of the Site which has an overall status of 'Poor' and the Welland Lower Jurassic Unit waterbody to the west which has an overall status of 'Good'.
- 5.8.11 The West Glen River flows from north-west of the Site before flowing east then south and bisecting the centre of the Site adjacent to the East Coast Mainline railway line. The River Gwash is located approximately 50 m south of the Site and flows in an eastwardly direction before meandering south and draining into the River Wellend. The East Glen River is located approximately 86m north-east of the Site, flowing south before joining the West Glen River. There is a small unnamed watercourse in the north-west extent of the Site, west of Vale Farm. There is a small unnamed pond immediately adjacent to the Site which is connected to the West Glen River.

5.8.12 The Site is primarily located within Flood Zone 1, an area classed as having a low probability of flooding. The eastern and southern extents of the Site are located adjacent to the West Glen River, an area within Flood Zone 3, an area classed as having a high probability of flooding.

What are the effects?

5.8.13 The Proposed Development has the potential for effects on the following receptors:

- Topography and land use;
- Rainfall;
- Solid geology;
- Superficial geology;
- Contaminated land;
- Hydrogeology;
- Surface hydrology;
- Site drainage;
- Hydrological regime and surface water morphology;
- Surface Water Continuity;
- Flooding;
- Public Water Supplies;
- Private Water Supplies (PWS);
- Abstraction and Discharge Consents; and
- Designated Receptors.

5.8.14 Potential risks include the spillage or leakage of chemicals, fresh concrete, foul water, fuel or oil, during use or storage onsite. These pollutants have the potential to adversely affect soils, surface water, subsurface water and groundwater quality, and hence effects on the biodiversity of receiving watercourses. A draft Water and Construction Management Plan (WCMP) has been prepared and describes water management measures to control surface water runoff and drain

hardstanding and other structures during the construction, operation and decommissioning of the Proposed Development and will form part of a Pollution Prevention Plan (PPP). The measures set out in the draft WCMP will be included within the oCEMP, OEMP and oDEMP. As part of the design, watercourses will be buffered by set distances determined as part of the WEMP, which infrastructure will not encroach on.

- 5.8.15 Erosion and sedimentation can occur from excavations, de-watering, ground disturbance and overburden stockpiling, the largest element of which, within the Proposed Development, would be the Primary Onsite Substation and primary and secondary construction compounds. Due to the buffer distances between construction areas and watercourses and ditches, which will be outlined as part of the WCMP, and the largely flat topography of the Site, overland flow generation is likely to be minimal. Any silt generated during construction will be entrained within cut off ditches before reaching watercourses and land drains, with the exception of any new watercourse crossings.
- 5.8.16 Sediment also has the potential to change near-surface flow in superficial geology deposits by creating a physical barrier within naturally occurring drainage micropores. Sediment entering near-surface water in superficial deposits also has the potential to impact on groundwater quality within bedrock deposits / fissures. This will be managed in accordance with the WCMP.
- 5.8.17 The Proposed Development will not result in substantial impediments to near-surface water flow as the detailed Site drainage design will take into account any severance of saturated areas to ensure hydrological connectivity is maintained. The Proposed Development will involve the installation of PV Arrays arranged on Mounting Structures. The Mounting Structure posts will be driven into the ground up to a maximum depth of 2.5m. It is considered that installing Mounting Structure posts will have a

negligible effect on the displacement or change in sub-surface water flow. This is due to the thin nature of the supporting frame.

- 5.8.18 The Flood Risk Assessment identifies that the installation of PV Arrays and establishment of grass underneath the PV Arrays does not have the potential to significantly increase surface water runoff rates compared to the baseline scenario. An Outline Surface Water Management Strategy will be submitted as an appendix to the ES which will outline the surface water management measures to be implemented at the Proposed Development.
- 5.8.19 Further information and consultation regarding the impacts on public water supplies and private water supplies will be undertaken and reported upon within the ES.
- 5.8.20 As there would be substantially less activity during operation, and as there is unlikely to be any significant ground disturbance during operation, the magnitude of these effects is similarly reduced compared to construction.
- 5.8.21 Potential effects of decommissioning the Proposed Development are similar to those during construction. These effects would be substantially lower in magnitude than during construction.
- 5.8.22 With the implementation of the CEMP, DEMP and WCMP all of these effects are considered to be negligible and not significant.

5.9 Chapter 13: Agricultural Land and Soils

- 5.9.1 This section considers the potential effects of the Proposed Development on agricultural land and businesses during construction, operation and decommissioning.

What might be affected?

5.9.2 The key receptors considered in respect of agriculture are:

- Agricultural land quality - The quality of agricultural land, its pattern and distribution, and the potential effects on the land quality as a resource, are considered;
- Soil structure - Soil has many different functions and can be affected positively or negatively by land use and management even if agricultural land quality is not affected; and
- Local farm businesses - Land management is influenced by many factors, and the effects on the ability to farm land may have localised implications, positive or negative.

5.9.3 An ALC survey of the Solar PV Site and Mitigation and Enhancement Areas was undertaken in late 2021. The table below sets out the results of the survey, showing hectares of different agricultural land classifications across the Site. Grades 1, 2 and 3a are classified as ‘best and most versatile agricultural land’ (BMV).

ALC	Area (Ha)	Area (%)
Grade 1	0	0
Grade 2	110	12
Grade 3a	320	36
Grade 3b	415	47
Grade 4	10	1
Grade 5	0	0
Non-agricultural	30	3
Urban	4	<1
Not Surveyed	0	0

ALC	Area (Ha)	Area (%)
Total	889	100

5.9.4 Soils within the Solar Site PV Site and Mitigation and Enhancement Areas are predominantly developed over limestone and are quite variable spatially, e.g., due to variations in soil depth to impenetrable rock, stone/rock content and wetness class.

5.9.5 The land is predominantly in arable cropping uses, mostly cereals with arable break crops.

What are the effects?

5.9.6 The potential for adverse effects on agricultural land (both on the soils and the land quality) is greatest during the construction phase. The trafficking of agricultural land by construction vehicles and machinery, the timing of work on soils and the timing and methodology of cable laying will be required to be carried out in accordance with industry good practice and methodologies tailored specifically for the soils, such as avoiding trafficking or handling soils when wet, and restoring soils into trenches in the same order they came out. These measures will be set out within the Soil Management Plan that will form part of the CEMP that will be secured through the DCO. This will be necessary to avoid potentially long-term, albeit localised, effects on soil structure and, in extreme cases, land quality, albeit localised.

5.9.7 There will be primary and secondary construction compounds, and internal access tracks. Where these are temporary there is the potential for short-term construction impacts and soil handling and management plans will be required to ensure that at the end of the construction phase these areas are restored with no or minimised impact on soil structure or land quality.

- 5.9.8 There is potential for adverse short-term effects on farm businesses and enterprises as a result of construction, such as closure or severance of field accesses at key times of the farming year, although the impact will be managed through dialogue with the landowners and the CEMP.

- 5.9.9 There will be areas within the Solar PV Site where the soils and agricultural land quality will be affected for the duration of the operation, such as internal tracks, inverters etc. At the detailed design stage the loss of best and most versatile agricultural land will be minimised as far as possible by locating internal access tracks, inverters etc on lower grade agricultural land.

- 5.9.10 The effects on soils across the Solar PV Site, other than the localised areas described above, will be limited. There will be normal ongoing management of the grassland beneath the PV Arrays and the landscape buffers, but there should be no requirement for trafficking of soils or ground disturbance relating to the solar panels, other than any periodic maintenance requirements (including replacement of panels).

- 5.9.11 The land management and farm enterprises will inevitably change. However, there is the potential for overall benefits to soils as a result of arable soils reverting to pasture, through build-up of organic matter for example.

- 5.9.12 Overall, adverse effects on soils and land quality during operation will be limited to the areas of fixed equipment and access tracks, predicted to be less than 5ha across the Site and not significant.

- 5.9.13 There will be changes to farming practices. Arable farming underneath the PV Arrays will be unlikely, but grassland farming and biodiversity land management will occur. The preliminary view is that the effects on farm businesses, which operate wider holdings beyond the areas contained within the Solar PV Site, are not anticipated to be significant.

The effects on the farm businesses are generally expected to be beneficial in terms of a secure, diversified source of income, and would last for the duration of the Proposed Development.

- 5.9.14 Furthermore, the total area of BMV agricultural land located within the Solar PV Site is a small fraction (0.077%) of the land area of Rutland and Lincolnshire that is of BMV quality.
- 5.9.15 Decommissioning would involve the dismantling and removal of the Proposed Development. Areas of access tracks and Solar Stations would be restored using soil retained onsite from the construction phase, which will have been retained on site in managed bunds.
- 5.9.16 There is the potential to damage soils and soil structure, and in extreme cases to bring about localised reduction of agricultural land quality, during the decommissioning phase. The trafficking of soils when conditions are unsuitable (e.g. soils are saturated or frozen) could damage the structure necessitating remedial activity to restore quality.
- 5.9.17 There is limited potential for disruption to farm businesses during the decommissioning, subject to advance notice to allow time for the agricultural enterprises being run during the operational phase to be moved elsewhere or disbanded.
- 5.9.18 Taking into account the implementation of the oCEMP, and oDEMP and the management measures that will form part of a LEMP, all of these effects are anticipated to be Slight and not significant.

5.10 Chapter 14: Glint and Glare

- 5.10.1 This section considers the potential effects of the Proposed Development on in relation to Glint and Glare during construction, operation and decommissioning.

What might be affected?

5.10.2 The Proposed Development has the potential for adverse effects on the following receptors:

1. Ground-based receptors (road users – specifically drivers of motor vehicles - and occupants of surrounding dwellings);
2. Railway operations and infrastructure (train drivers and signals);
and
3. Aviation surrounding Royal Air Force (RAF) Wittering, RAF Cottesmore, Shacklewell Airfield and Castle Bytham Airfield.

What are the effects?

5.10.3 There is potential for adverse effects on an approximately 100m section of the A6121 on road users, two dwellings and approximately 750m of railway line. However, with the implementation of landscape screening secured through the oLEMP, the significance of the effects ranges from negligible to minor which is not significant.

5.10.4 There is no predicted impact upon RAF Wittering due to effects not being predicted towards the ATC Tower or approach paths. The effects on Shacklewell Airfield, Castle Bytham Airfield and RAF Cottesmore are acceptable in accordance with the associated guidance and industry best practice.

5.11 Chapter 15: Climate Change

5.11.1 This section considers the potential effects of the Proposed Development on in relation to Climate Change during construction, operation and decommissioning.

What might be affected?

5.11.2 The following receptors are considered in relation to climate change;

- The vulnerability of the Proposed Development to climate change (e.g., increased severity and frequency of flooding);
- The impact of the Proposed Development on climate change (i.e., Greenhouse Gas (GHG) emissions); and
- A summary of significant effects on environmental receptors sensitive to climate change (e.g. effects on ecological receptors from the increased severity and frequency of droughts).

What are the effects?

- 5.11.3 The Proposed Development could potentially be sensitive to changes in climatic variables, including atmospheric circulation, land cover changes, rainfall/flooding and temperature increases, given the riparian location of the Site. The Proposed Development could also be sensitive to the frequency of extreme wind events (e.g., storms) which could damage solar panels.
- 5.11.4 The design of the Proposed Development will respond to adverse effects, for example adapting the depth of poles required and increased cooling capabilities. As such, no significant effects are predicted as a result of increased wind speeds, rainfall/flooding and cloud amount during the operational phase of the Development, nor from other climatic changes.
- 5.11.5 When operational, the Proposed Development is anticipated to generate approximately 350,000 MWh of renewable electricity per year which will be exported to the National Grid and displace energy generated from GHG emitting sources.
- 5.11.6 Given the relatively limited magnitude of change in climate parameters predicted over the operational period of the Proposed Development, the baseline for environmental receptors is anticipated to change either

imperceptibly during this period and the effect of the Proposed Development on that altered baseline is negligible.

5.12 Chapter 16: Socio-economics

5.12.1 This chapter considers the potential effects generated by the Proposed Development during construction, operation and decommissioning in relation to Socio-economics. The Proposed Development has the potential to result in effects upon population, tourism, employment and business, in particular:

- Employment:
 - Leakage and Displacement;
 - Multiplier Effect;
 - Gross Value Added (GVA);
 - Deadweight; and
- Tourism.

What might be affected?

5.12.2 In 2020 there were an estimated 183,701 residents in Rutland (40,476) and South Kesteven (143,225). The population profile of the area is older than the England average, with a larger percentage of people of retirement age and a lower percentage of 0 to 15 year olds compared to the England average.

5.12.3 In 2020 48.5% of Rutland working age residents and 35.6% of South Kesteven working age residents had achieved a degree level qualification or higher (NVQ4+). These compare to an England average of 42.8%.

5.12.4 Between October 2020 and September 2021, the economic activity rates of Rutland and South Kesteven working age residents were 76.1% and

77.0% respectively. These were below the England average economic activity rate of 78.8%.

- 5.12.5 In 2020 an estimated 73,000 jobs were recorded in the study area, split between 16,000 in Rutland and 57,000 in South Kesteven. Approximately 36.2% of total employees in the study area were recorded as working on a part time basis. This was higher than the 31.8% of part time workers recorded across England as a whole.
- 5.12.6 The study area has greater representation of health (14.4%), education (11.3%), manufacturing (10.3%), retail (10.6%) and accommodation and food services (8.2%) employment than nationally. However, the study area is less represented in knowledge-based economy sectors like professional, scientific and technical (6.8%), business administration and support services (4.1%), information and communications (3.1%) and finance and insurance (1.0%). There are an estimated 3,500 construction workers in the study area, representing 4.8% of total local employment.
- 5.12.7 In 2021 there were 8,190 businesses in the study area. Of these, 90.2% were classified as micro-businesses employing between 0 and 9 people. At the other end of the scale, only 0.2% of businesses in the study area were classified as large (employing more than 250 people).
- 5.12.8 Residents of Rutland received a median gross wage for full time work of £710 per week in 2020, which is greater than that recorded across South Kesteven (£583) and England (£613). However, full time workers in Rutland (£598) and South Kesteven (£564) received less per week than nationally (£613).
- 5.12.9 The closest tourism receptors to the Solar PV Site are the MacMillan Way (which runs adjacent to the Solar PV Site), Stamford, Burghley House, Tallington Lakes Leisure Park (located approximately 3.3km from

the Solar PV Site), Bowthorpe Farm Park (2.3km) and Stantons Pit Nature Reserve (3km).

What are the effects?

5.12.10 Economic benefits will arise from the provision of temporary jobs over the construction phase of the Proposed Development.

5.12.11 The Applicant estimates that an average of 150 full time equivalent (FTE) gross direct temporary jobs will be employed onsite over the construction phase. It can be estimated that 56 of the 150 FTE jobs could be taken by residents of the study area. It is also estimated that the construction phase will support 75 FTE net additional direct, indirect and induced jobs in the wider economy. The effect across the study area is therefore assessed as minor beneficial, and not significant.

5.12.12 The construction phase is likely to have a minimal, localised effect on the tourism economy. During the construction phase, visibility, noise and vibration, construction traffic and air quality effects would have a moderate effect on users of the MacMillan Way and Byway E123, and a slight or minimal effect on the other PRow within or in the vicinity of the Site. Taking this into account, overall, it is considered that the construction phase will have a negligible adverse effect on the local tourism economy, which is not significant.

5.12.13 Economic benefits will arise from the provision of monitoring and maintenance jobs supported over the operational period. It is estimated that the Proposed Development will result in a net employment gain of 4.5 FTEs over the operational phase of the Proposed Development. The scale of impact across the study area is therefore assessed as negligible beneficial and not significant.

5.12.14 It is estimated that the 4.5 FTE gross jobs supported during the operation phase of the Proposed Development will generate £154,800 per annum

in the study area economy. The scale of impact across the study area is therefore assessed as negligible beneficial and not significant.

5.12.15 Potential negative impacts on tourism receptors could arise if there are clear and close views from them onto the Proposed Development. The construction phase is likely to have a minimal, localised effect on the tourism economy, result in an overall negligible adverse effect on the local tourism economy, which is not significant.

5.12.16 At the operational phase, effects to tourism are likely to be localised and there is no evidence to suggest that effects on the recreational and visual amenity would significantly reduce tourist visits to the study area. It is considered that the presence of the Proposed Development would only have a negligible adverse effect on the local tourism economy of the study area during the operation phase, which is not significant.

5.12.17 The estimated duration of the decommissioning phase is expected to be between six to 12 months, and it is anticipated that the employment and tourism effects over this period will be similar to the construction phase.

5.13 Chapter 17: Arboriculture

5.13.1 This chapter considers the potential effects generated by the Proposed Development during construction, operation and decommissioning in relation to Arboriculture.

What might be affected?

5.13.2 The Site primarily comprises agricultural land, with the majority of trees forming clusters around the Site boundaries or boundaries are formed by hedgerow specimens. There are a limited number of field trees and some larger blocks of woodland plantations across the Site. Ancient Woodland is located offsite, adjacent to the Site.

What are the effects?

- 5.13.3 The primary potential environmental effect is the possible requirement for tree felling and tree surgery to facilitate the construction of the Proposed Development. There is also potential for accidental damage to be caused to trees during the construction and decommissioning processes if adequate tree protection measures are not rigorously enforced during periods of activity. However, an Arboricultural Impact Assessment (AIA) will be submitted with the DCO Application and through the implementation of the Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) adverse effects would be limited to minor and not significant.
- 5.13.4 The implementation of the oLEMP will ensure that no adverse effects on trees during operation arise as a result of management activities to maintain the operational performance of the Proposed Development (e.g., tree management to avoid shading on the PV Panels).

5.14 Chapter 18: Major Accidents and Disasters

- 5.14.1 This chapter considers the potential effects generated by the Proposed Development during construction, operation and decommissioning in relation to the Risk of Major Accidents and Disasters.

What might be affected?

- 5.14.2 The Proposed Development has the potential to increase the likelihood and severity impacts of Major Accidents and Disasters

What are the effects?

- 5.14.3 The Proposed Development will increase the amount of traffic on the public highway during the construction, operational and decommissioning phases. It is considered that the construction phase of

the Proposed Development would have a non-significant impact with regards to accidents and safety on the highway network.

- 5.14.4 The Heys Group Stamford Storage site is located 150m from the western Site boundary. It is an Upper Tier COMAH site as it stores hazardous chemicals prior to distribution. The COMAH site has prepared an internal emergency plan to deal with major accidents and has liaised with the emergency services in order to deal with major accidents and to minimise their effects. The CEMP and DEMP will provide details on the site and the emergency response required in the event of an accident. This will involve stopping works, evacuating personnel from the affected area and consulting emergency services for advice
- 5.14.5 The preliminary findings conclude that the risk of the Proposed Development flooding from all potential sources of flooding is negligible and not significant.
- 5.14.6 Health and Safety on site would be managed by the contractor during construction and decommissioning to mitigate the risk of fire in line with legislative safety requirements such as the Regulatory Reform (Fire Safety) Order 2005 and the CDM Regulations 2015. The Proposed Development is not expected to have a significant effect on the environment due to the risk of a major accident occurring as a result of fire during construction and decommissioning. The operational phase of the Proposed Development would involve routine maintenance and servicing of equipment to ensure the safe operation of equipment. No significant effects are anticipated following implementation of mitigation measures.
- 5.14.7 The Grid Connection Cable and Primary Onsite Substation, which form a part of the Proposed Development, exceed 132kV and therefore have the potential to cause electromagnetic fields with potential for adverse

effects on human health. However, taking design principles into account, electromagnetic fields are unlikely to have any adverse effects on residential receptors.

5.15 Chapter 18: Cumulative Effects

5.15.1 This chapter discusses the potential for cumulative effects as a result of the Proposed Development. The cumulative effects assessment will consider two types of relationships:

- 1) Intra-project effects: combined effect of individual development - for example, noise, dust and visual on one particular assessment; and
- 2) Inter-relationship: several developments with insignificant impacts individually but which together represent a significant cumulative effect.

5.15.2 The list of cumulative developments considered is included within Appendix 19.1 of the PEIR. This list will be kept under review and if further planning applications are submitted or further information becomes available prior to the submission of the DCO Application, this will be considered within the ES

Intra-project effects

5.15.3 Intra-project effect interaction occurs where several different effects resulting from the Proposed Development have the potential to affect a single receptor. This is assessed by determining residual effects, as assessed in the individual topic chapters, upon identified receptor groups. Consideration is given to the potential for multiple effect interaction to arise for each of the identified receptor groups across the construction, operation and decommissioning of the Proposed Development.

5.15.4 The receptor groups identified within this PEIR can be broadly categorised as follows:

- Landscape and visual resources: landscape character; visual receptors (residents; users of public rights of way; other visual receptors);
- Ecology and biodiversity: ecologically designated sites;
- Historic environment: settings of designated heritage assets;
- Access and highways: road users, residents; pedestrians/cyclists; sensitive local uses (e.g. schools, hospitals, local facilities);
- Noise and vibration: residents, users of public rights of way; users of other land uses (e.g. places of work);
- Air quality: residents; ecological designated sites;
- Water resources and Ground conditions: flood risk, land/soils;
- Agriculture: agricultural land; farm businesses; and
- Socio-economics: employment levels and tourism.

5.15.5 The in-combination assessment is provided at Appendix 19.2 of the PEIR.

5.15.6 The in-combination assessment has not identified any significant effects beyond those identified within the individual topic chapters and the embedded mitigation measures along with the measures set out in the oCEMP, oLEMP and oDEMP are sufficient to mitigate and control the potential adverse impacts.

Inter-relationship

Landscape

5.15.7 The Proposed Development is not widely visible in long distance views and therefore it is considered unlikely that the cumulative assessment would result in significant cumulative visual effects. Given the Proposed Development's relative limited visibility, the impacts to landscape

character would also be limited and are either of such small scale or distance from cumulative schemes that significant cumulative effects are unlikely.

Ecology and Biodiversity

- 5.15.8 At this stage, there are no cumulative schemes identified that are considered to have the potential to interact cumulatively with the Proposed Development in relation to ecology and biodiversity.

Heritage

- 5.15.9 The anticipated effects on buried archaeological remains would be on highly localised features wholly within the Site. Given the intervening distance between other schemes and the Mitigation and Enhancement Areas, it is expected that there would be no cumulative effects resulting from changes to the setting of the buried archaeological remains, historic buildings or historic landscapes.

Access and Highways

- 5.15.10 There are three cumulative schemes identified within the long list that have the potential to give rise to potential cumulative effects in relation to access and highways.
- 5.15.11 Two of the cumulative schemes are unlikely to give rise to cumulative effects as the construction phases do not overlap. Should the operational phases of the cumulative schemes and the Proposed Development coincide, access and highways effects of Proposed Development are identified to be negligible. The other cumulative scheme, 2019/0433/FUL (extension to Clipsham Quarry), is likely to generate negligible transport effects as there is no uplift in traffic flows from the existing operation. Therefore, no additional significant cumulative effects upon access and highways are envisaged at this stage.

Noise and Vibration

- 5.15.12 A scheme located within 200m of the Site has the potential for cumulative effects. However, these are unlikely to be significant given that similar warehouse uses already exist in the area and that the nearest noise-sensitive receptors are exposed to generally elevated baseline noise levels from traffic noise.
- 5.15.13 A housing allocation will introduce new noise-sensitive receptors, but they are unlikely to be affected by the Proposed Development given that the separation distance from the Solar PV Site is approximately 1km or more.

Air Quality

- 5.15.14 One scheme with potential for cumulative effects has been identified due to its proximity to the Proposed Development. Cumulative dust emissions are considered unlikely with dust mitigation measures in place. The Transport Statement prepared for the cumulative scheme concluded that there would be very limited impacts generated by the extended operations of the scheme. As such it is not anticipated that there would be any significant cumulative air quality effects at this stage.

Water Resources and Ground Conditions

- 5.15.15 Where there is potential for overlap between construction of cumulative schemes within the same catchment, there is the potential for short term, temporary construction related pollutants to impact on watercourses in the study area. However, taking mitigation into consideration there would not be a significant increase in the risks to any waterbodies. As such, there would not be any additional significant cumulative effects
- 5.15.16 Two allocations were identified as having a potential cumulative effect with the Proposed Development. However, there are no live applications

associated with these allocations and therefore no available information to inform the assessment at this stage.

Agricultural Land Use

5.15.17 The combined total area of BMV land affected by the Proposed Development and other NSIP solar developments within Rutland and Lincolnshire (based on the data currently available) would equate to approximately 740ha. This would equate to less than 0.2% of the BMV resource in the region. Therefore, in the context of the use of BMV land within the wider area, a significant cumulative impact from the use of BMV land is not anticipated. Glint and Glare

5.15.18 There are no schemes identified within 1km of the Site (the Zone of Influence for Glint and Glare) with the potential for cumulative effects.

Climate Change

5.15.19 The overall significance of effect for the Proposed Development is moderate beneficial and therefore it is not considered necessary to assess the effect of the Proposed Development along with other schemes. The Proposed Development would not be contributing to any significant adverse cumulative effects would be contributing towards reducing the magnitude of any national or global adverse cumulative effects.

Socio-economics

5.15.20 It is considered that the Proposed Development will generate cumulative construction related employment and linked gross value added (GVA) with other schemes in the region and wider economy. Based on professional judgement this is assessed to be a temporary moderate beneficial effect, which is considered significant.

5.15.21 The cumulative effect during construction on the local tourism economy is likely to remain as temporary minor adverse / negligible and non-significant, as there are no major cumulative developments close to the Proposed Development.

5.15.22 The cumulative effect from the generation of employment and associated GVA during operation is likely to remain as negligible, which is not considered to be significant.

Arboriculture

5.15.23 The effects on the arboriculture resources are limited to the Site. Given the intervening distance between the Proposed Development and associated effects, there would not be any significant cumulative effects.

6.0 Summary of Potential Significant Effects

6.1.1 Preliminary topic assessments have identified that the Proposed Development may generate the following likely significant residual effects.

Landscape and Visual Impact

6.1.2 There would be a change to the landscape character and views within the Solar PV Site with views changing from an agricultural landscape to views over PV Arrays set within the existing landscape context. As new planting matures and existing vegetation is allowed to grow out providing visual screening and biodiversity benefits, effects would diminish as visibility of the Proposed Development reduces. However, the effects are considered to be Major – Moderate adverse which is significant.

Climate Change

6.1.3 The CO₂ emissions generated by the Proposed Development would be displaced within approximately 10.5 years, and all savings beyond that would be a net benefit in terms of reducing climate change, relative to

the baseline. Over 40 years, the saving is estimated at approximately 1.9 million tonnes of CO₂. This is considered to be a moderate positive environmental effect that is significant.

7.0 Next Steps

7.1.1 The next stage of the EIA process will be to refine the design of the Proposed Development, along with our assessments of potential environmental effects and further develop mitigation measures to reduce any identified adverse effects where possible. Specifically, the project team will be seeking to undertake the following, which will be reported and assessed within the ES:

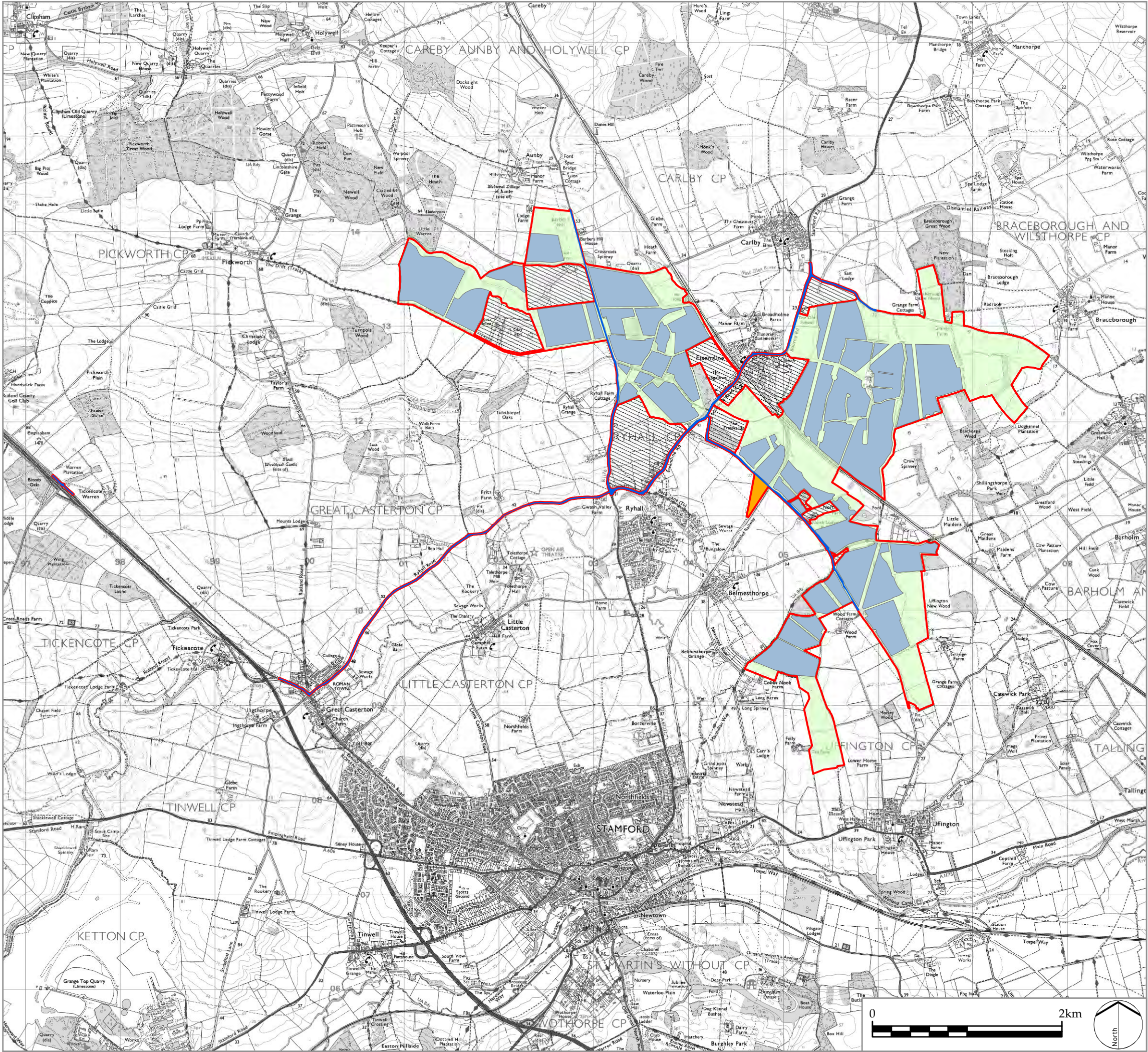
- Undertake further photography of agreed viewpoint locations and consult with the relevant local planning authorities with regards to the need for further photomontages to inform the LVIA within the ES.
- Seek access to offsite ponds to establish the presence of great crested newts through additional ecological surveys.
- Further consultation with stakeholders to establish the need and scope of targeted field evaluation (trial trenching) to explore the extent and value of any surviving remains in consultation with relevant heritage stakeholders.
- Further assessment of the impacts to settings of historic landscapes and heritage assets based on preliminary findings.
- Further consultation with relevant stakeholders on construction routes, access points, mitigation measures and whether any further baseline surveys are required.
- Further noise modelling and consideration of potential impacts on recreational users in the area.
- Further consultation with relevant stakeholders to identify potential impacts upon private and public water supply.

- Interviews with the land-owners to identify potential impacts to farm business and gather further information on how the arable land within the Solar PV Site is managed.
- Review the proposed green infrastructure strategy to reduce impacts of glint and glare.
- Review the potential impacts to trees through completion of the baseline tree survey and Arboricultural Impact Assessment (AIA).

8.0 Consultation

- 8.1.1 The views of consultation bodies and the local community serve to focus the environmental studies and to identify specific issues that require further investigation, as well as to inform aspects of the design of the Proposed Development.
- 8.1.2 Following statutory consultation on the PEIR and consideration of the feedback received, the design of the Proposed Development will be further refined and the PEIR will be developed into an ES to be submitted a part of a suite of DCO Application materials.
- 8.1.3 The ES will set out the issues that have been raised through consultation and how these have been considered and addressed within the design evolution of the Proposed Development and the EIA.

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LEGEND

Site Boundary

Solar PV Site

Mitigation and Enhancement Areas

Potential Highways Works

Grid Connection Route

Areas outside of Site Boundary

LD A DESIGN

PROJECT TITLE
MALLARD PASS SOLAR FARM:
PRELIMINARY ENVIRONMENTAL INFORMATION REPORT -
NON-TECHNICAL SUMMARY

DRAWING TITLE
Figure 1: Extents of the Site, Solar PV Site, Mitigation
and Enhancement Areas and Potential Highway
Works

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

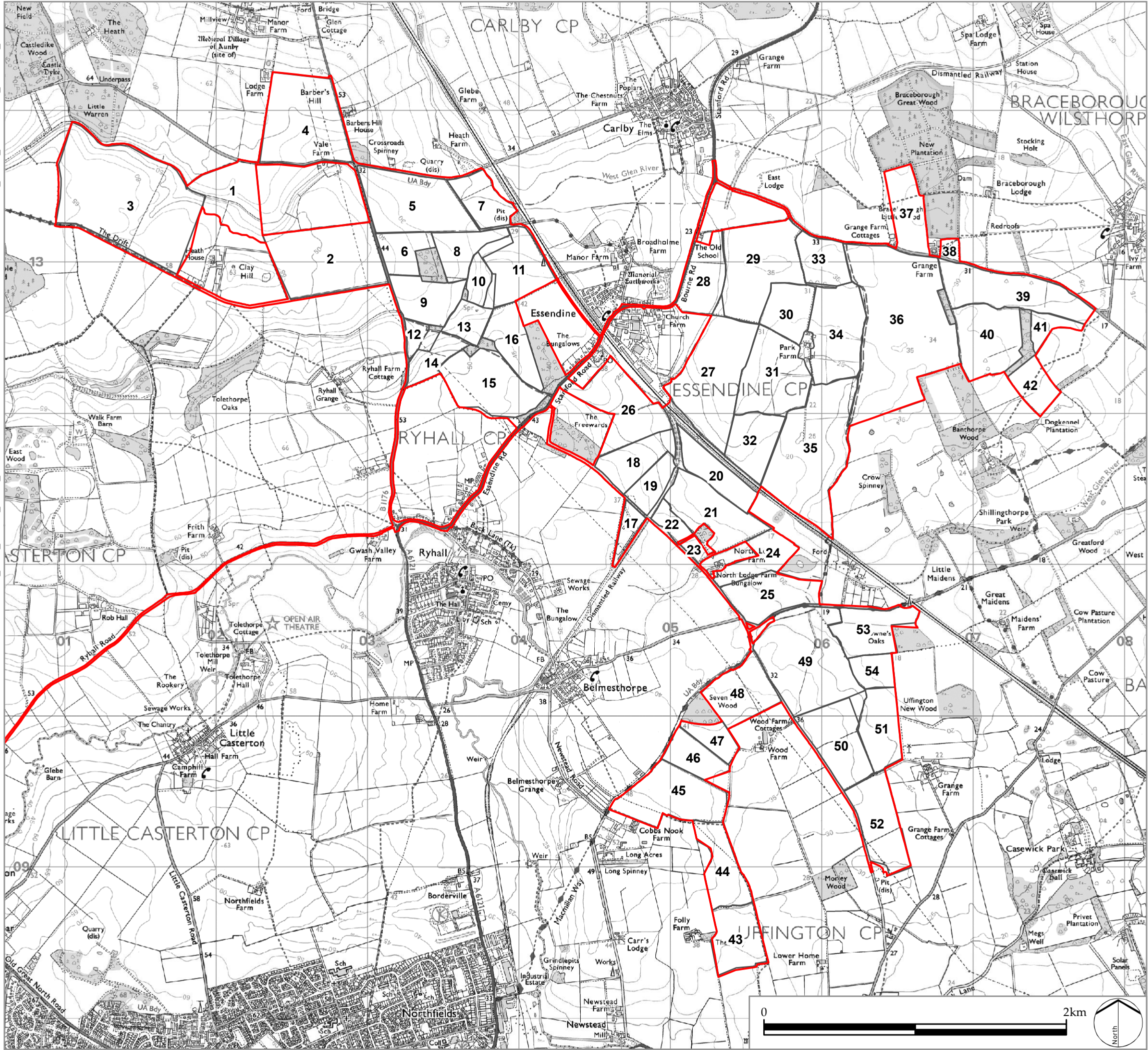
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Sources: Ordnance Survey, Esri

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LEGEND

Site Boundary

1Field Number

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PROJECT TITLE
MALLARD PASS SOLAR FARM:
PRELIMINARY ENVIRONMENTAL INFORMATION REPORT -
NON-TECHNCIAL SUMMARY

DRAWING TITLE
Figure 2: Field Numbering System

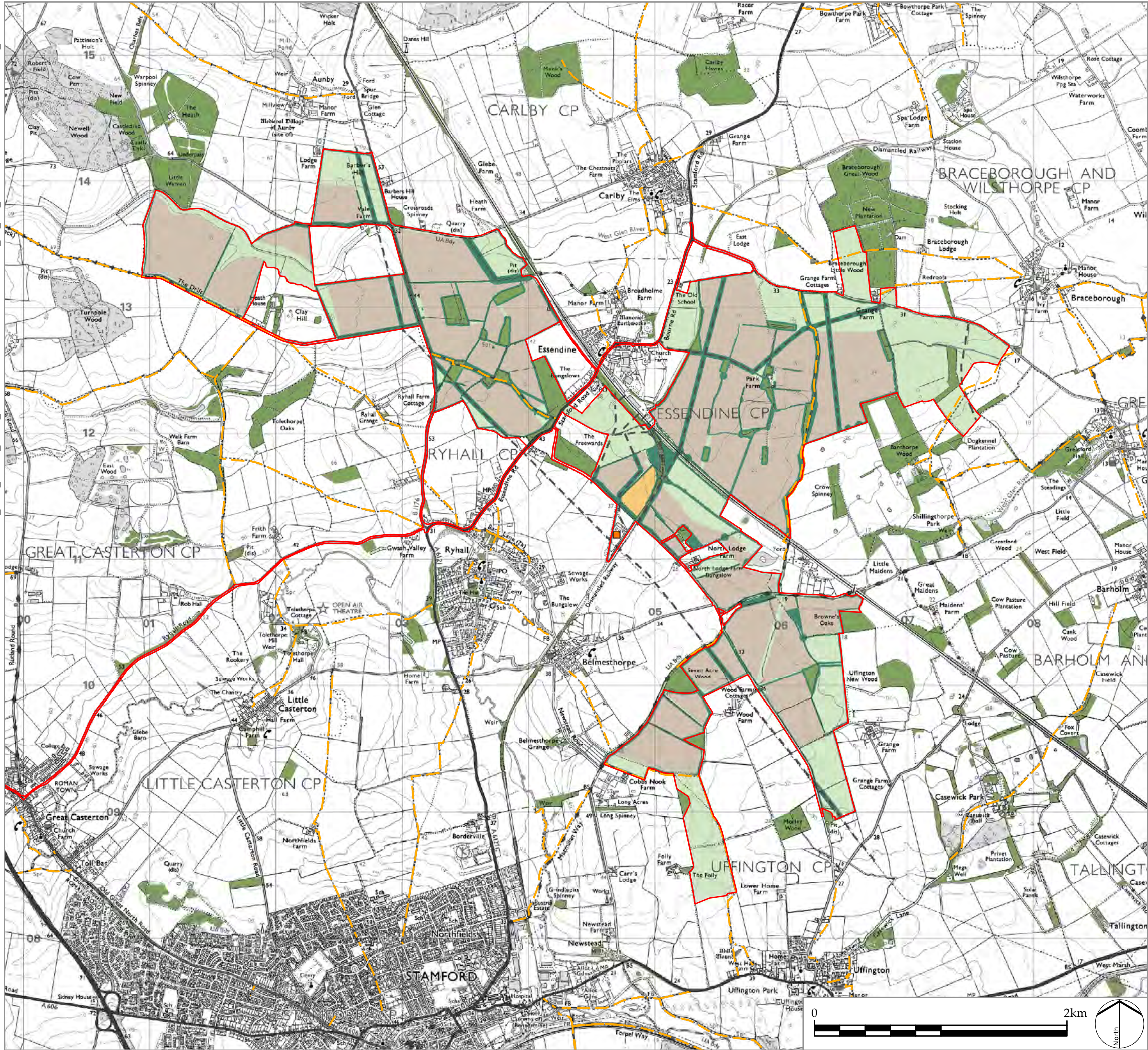
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DATE	April 2022	DRAWN AG
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Sources: Ordnance Survey



LEGEND

Site Features

Site boundary

Existing Utilities (gas, water, sewer and electricity)

National Grid Ryhall Substation

Public Right of Way

Woodland, hedgerows, trees, field boundary and ditches

Concept Masterplan Proposals

Solar PV Site

Mitigation and Enhancement Areas

Primary Onsite Substation

Buffers to woodland, trees, hedgerows, ditches, utilities and Public Rights of Way

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PROJECT TITLE
MALLARD PASS SOLAR FARM:
PRELIMINARY ENVIRONMENTAL INFORMATION REPORT-
NON-TECHNICAL SUMMARY

DRAWING TITLE
Figure 3: Stage 2 Concept Masterplan

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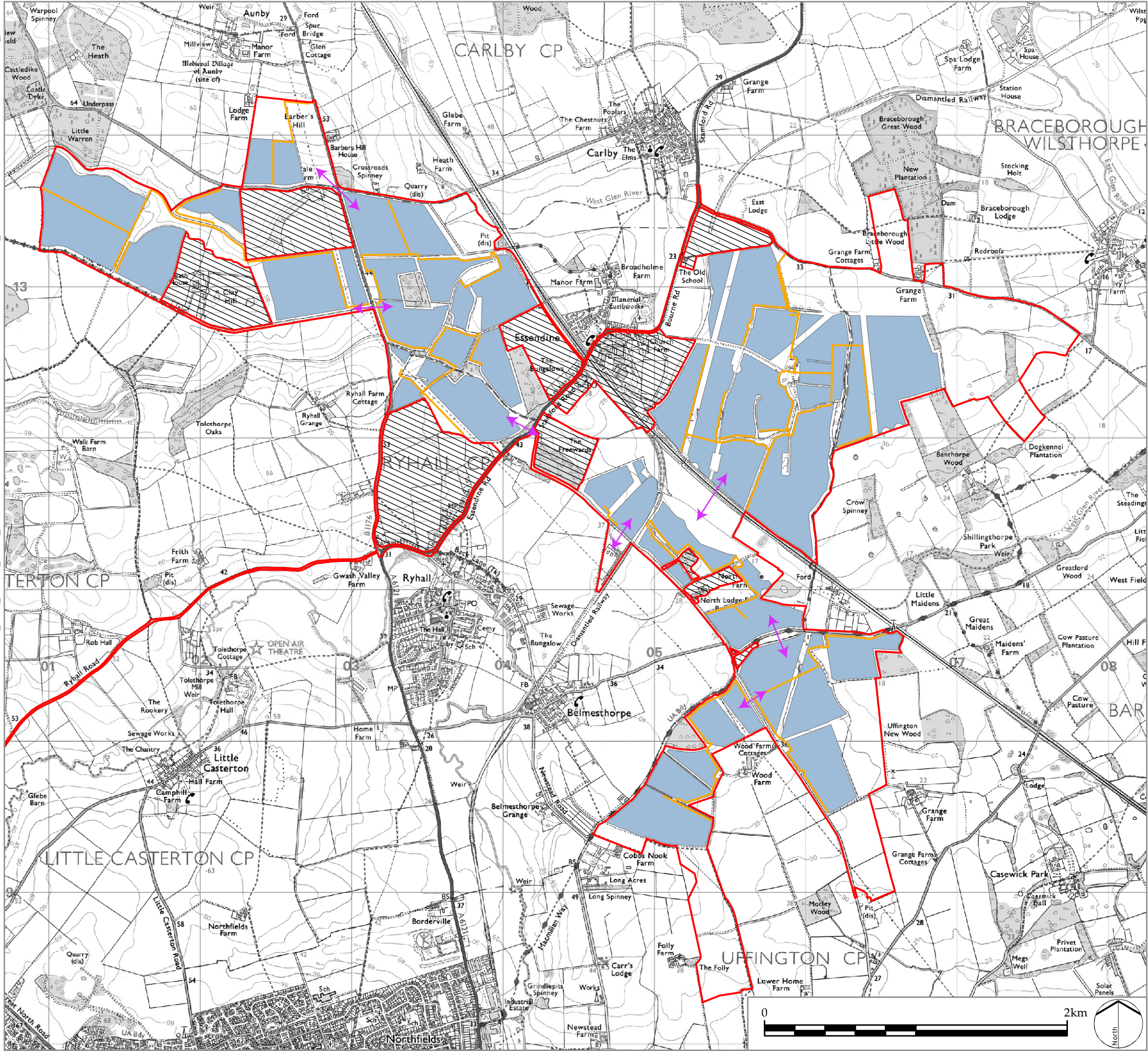
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Sources: Ordnance Survey, Natural England,
National Tree Mapping - © Bluesky International Limited

Z:\7863_NSIP_SOLAR_FARM_CONFIDENTIAL\GIS\PROJECTS\FIGURES FOR PEIR\FIGURE 5.7. INDICATIVE CABLE CROSSING LOCATIONS_V4.MXD



LEGEND

Site Boundary

Solar PV Site

Areas outside of Site Boundary

Internal Access Track

Indicative Cable Crossing Locations

Note: Cable crossing locations indicate locations where cables may be required to cross the adopted highway

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PROJECT TITLE
MALLARD PASS SOLAR FARM:
PRELIMINARY ENVIRONMENTAL INFORMATION REPORT-
NON-TECHNICAL SUMMARY

DRAWING TITLE
Figure 4: Indicative Cable Crossing Locations

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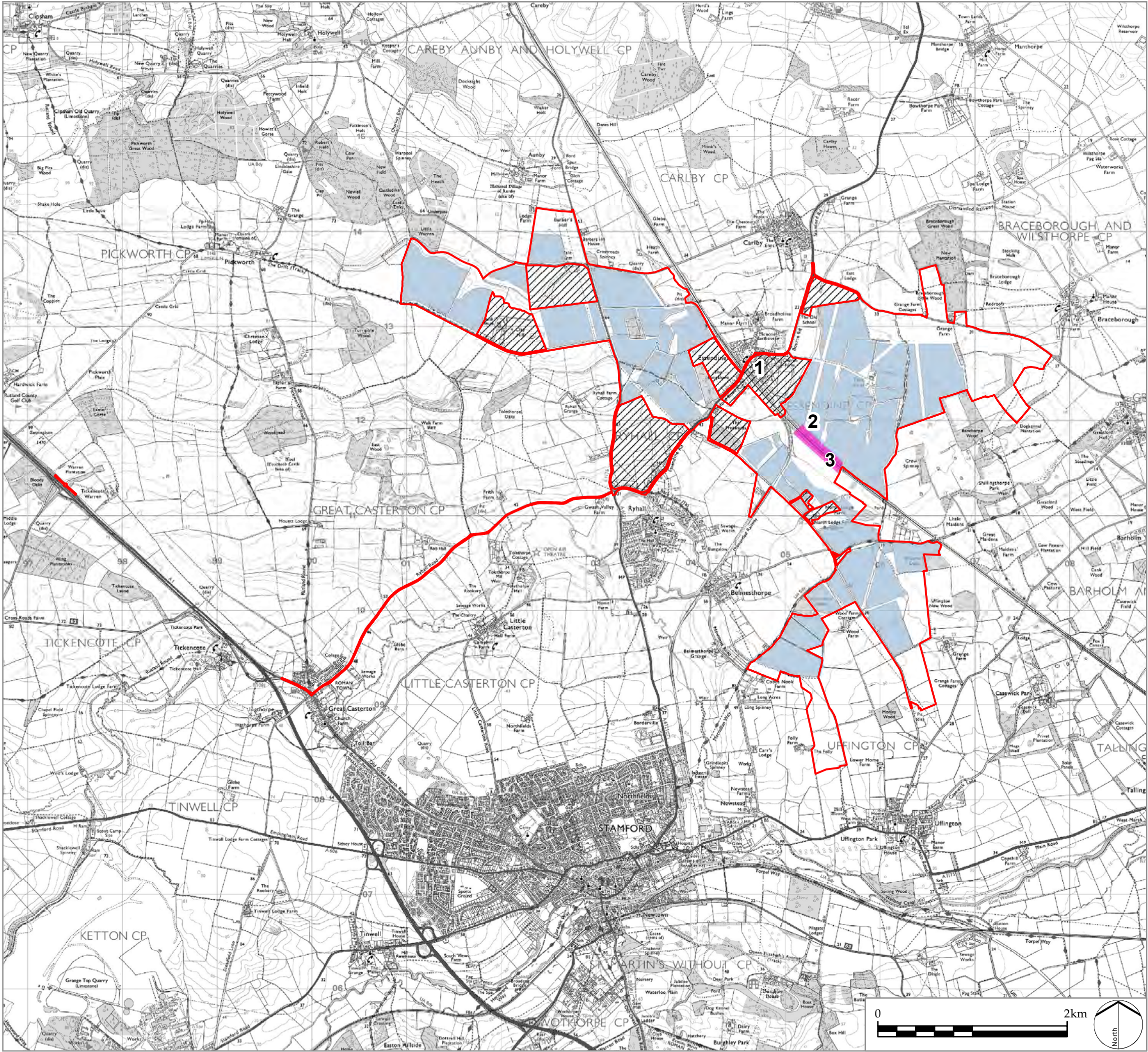
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Sources: Ordnance Survey, Esri

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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

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PROJECT TITLE
MALLARD PASS SOLAR FARM:
PRELIMINARY ENVIRONMENTAL INFORMATION REPORT -
NON-TECHNICAL SUMMARY

DRAWING TITLE
Figure 5: Potential Cable Crossing Options of the
East Coast Mainline Railway

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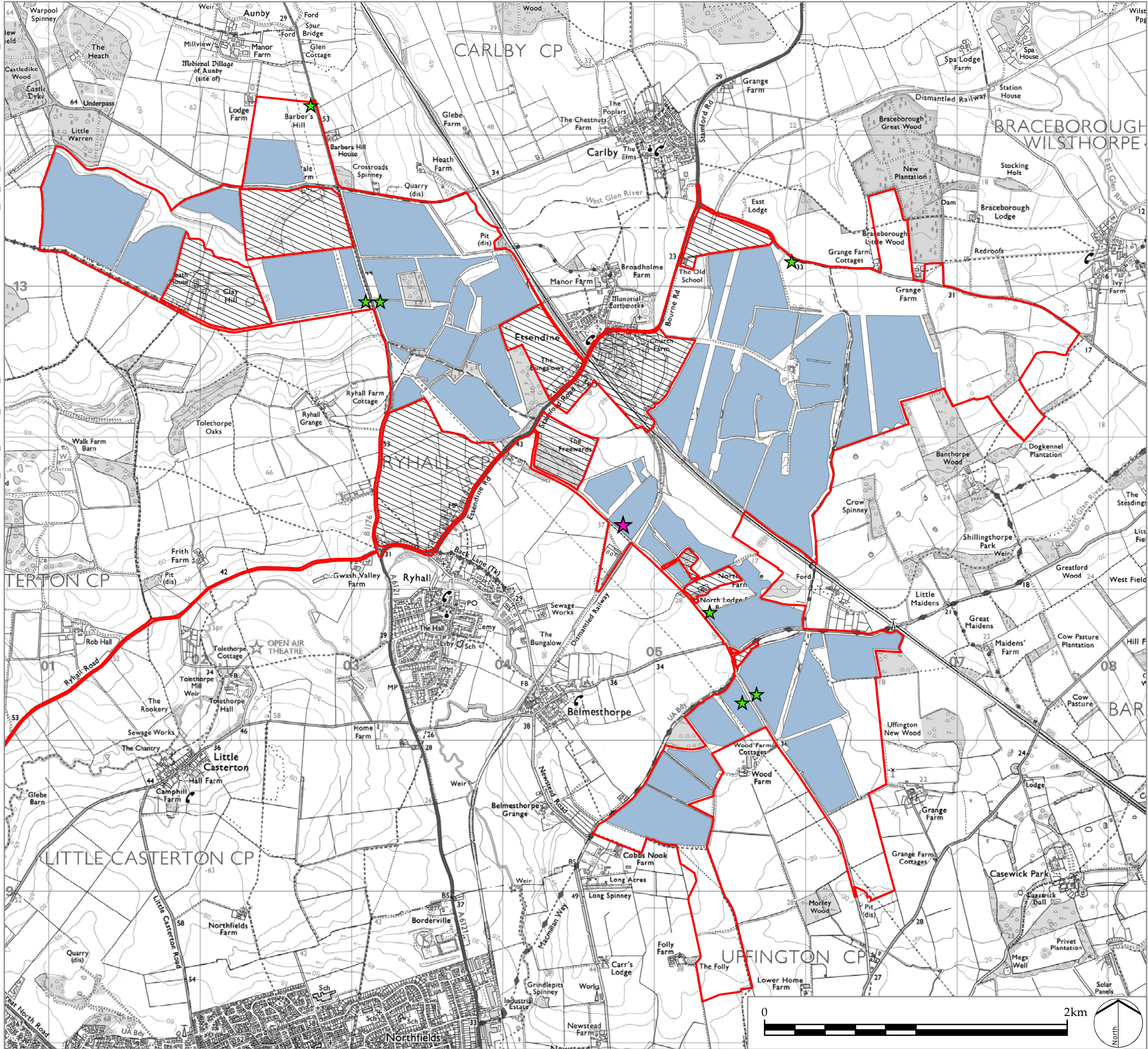
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- LEGEND
- Site Boundary
 - Solar PV Site
 - Areas outside of Site Boundary
 - Primary Site Access Location
 - Secondary Site Access Locations

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PROJECT TITLE
MALLARD PASS SOLAR FARM:
PRELIMINARY ENVIRONMENTAL INFORMATION REPORT-
NON-TECHNICAL SUMMARY

DRAWING TITLE
Figure 6: Site Access Locations

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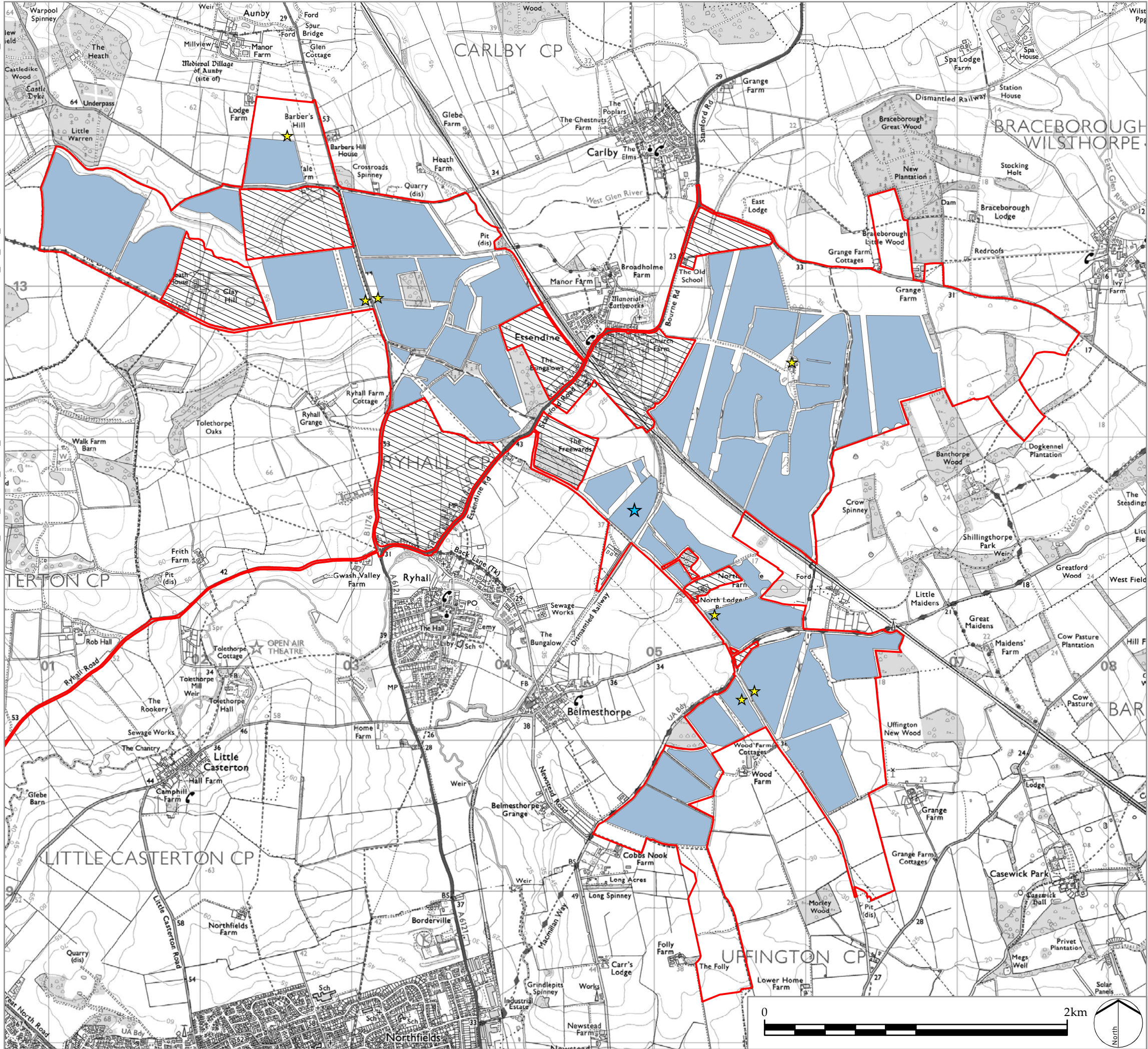
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- LEGEND
- Site Boundary
 - Solar PV Site
 - Areas outside of Site Boundary
 - Primary Construction Coumpound
 - Secondary Construction Compounds

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PROJECT TITLE
MALLARD PASS SOLAR FARM:
PRELIMINARY ENVIRONMENTAL INFORMATION REPORT-
NON-TECHNICAL SUMMARY

DRAWING TITLE
Figure 7: Indicative Locations of Primary and Secondary
Temporary Construction Compounds

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