South Oxfordshire District Council
135 Eastern Avenue,
Milton Park,
Milton
OX14 4SB

2022-06-30

Dear Sir/Madam,

PROPOSED SOLAR ARRAY AT LEWKNOR, OXFORDSHIRE – REQUEST FOR AN ENVIRONMENTAL IMPACT ASSESSMENT SCREENING OPINION

Introduction

Our client Solar 2 Ltd (hereafter referred to as 'the Applicant') intends to submit a planning application for the proposed installation of a ground mounted solar photovoltaic (PV) array and associated infrastructure at Lewknor, Oxfordshire (hereafter referred to as the 'Proposed Development'). Prior to the submission of a planning application the Applicant hereby formally requests an Environmental Impact Assessment (EIA) Screening Opinion from South Oxfordshire District Council.

Proposed Development Description

The Proposed Development is anticipated to consist of the installation of a ground mounted solar PV array and associated infrastructure with an estimated export capacity of 49.9MW.

The site covers an area of around 83 hectares (ha). The panels will have an approximate height of 3.2m. It is proposed that the solar array will operate for a temporary period of 40 years. The site will be fully restored after the decommissioning process.

The point of connection will be into an existing Overhead Line (OHL) which is situated approximately 2.8km north of the site. The cable route will form a separate application.

EIA Directive and Regulations

European Directive 2014/52/EU requires that certain projects, both public and private, must be assessed with regards to their impacts on the environment. The Proposed Development is a generating station with an export capacity of under 50MW and, therefore, falls under the Directive implemented in England by the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (hereafter referred to as 'the EIA Regulations').

As an industrial installation for the production of electricity with an area of development exceeding 0.5ha, the Proposed Development falls under Schedule 2 of the EIA Regulations. However, for a development to require a full EIA, there must be potential for significant environmental effects. Schedule 3 of the EIA Regulations outlines the selection criteria for determining whether a development will have significant environmental impacts, including consideration of the size and location of the development and the types and characteristics of the potential impacts.

In order to inform South Oxfordshire District Council's decision, and as per the requirements of Schedule 3 of the EIA Regulations, we have presented herein:

- a description of the location of the Proposed Development with a site location plan;
- a description of the physical characteristics of the Proposed Development;
- a description of the location of the Proposed Development with particular regard to the environmental sensitivity of areas likely to be affected;

- a description of the aspects of the environment likely to be significantly affected by the Proposed Development and any likely significant effects resulting from the production of waste and expected residues and emissions, or the use of natural resources;
- a description of any proposed features and measures of the Proposed Development to avoid, prevent or limit significant adverse effects on the environment; and
- a summary of proposed environmental appraisal work to support a planning application.

Location and Nature of the Site

Figure 1 presents the location of the site approximately 300m north of the village of Lewknor and 5.5 km south of the town of Thame. The site consists of two land parcels which border either side of the M40 motorway, with the A40 to the east, Weston Road to the west and Salt Lane to the north. The site area is approximately 83 ha.

The existing land use is predominantly arable with small sections of woodland. The site is largely enclosed by trees and hedgerows with more open sections to the north and north east. A Public Right of Way footpath (PRoW code: 277/7/10) traverses the eastern land parcel from the south west corner to the north, with a bridleway bordering the southern site boundary (Bridleway Code: 277/33/30).

Characteristics Proposed Development

The Proposed Development would comprise of a ground mounted solar PV array with an export capacity of up to 49.9MW covering an area of up to 83 ha. The solar PV panels will have an indicative height of 3m above ground level.

The Proposed Development would utilise natural resources to generate clean green renewable energy, generating 48,900 MWh per year, equivalent to the electricity consumption of approximately 13,000 homes.

The solar PV panel layout will be determined following site surveys and a design iteration process. A sufficient buffer distance will be placed around specific features to minimise any impact.

The construction of solar farm development gives rise to limited potential for waste. Waste generated through the construction period would be adequately managed by a Construction Environmental Management Plan (CEMP). There would be no waste produced during operation.

A Construction Environmental Management Plan (CEMP) will be produced outlining the appropriate measures to reduce and control the environmental impact associated with the construction phase of the Proposed Development.

The final design submitted will include a solar array, onsite substation, inverters, transformers, storage containers, access tracks across, fencing and CCTV for security purposes, the site all remaining within the Proposed Development red line boundary.

Following Pre-Application Advice received from South Oxfordshire District Council, the original site boundary has been amended in order to minimise potential adverse impacts on the Chilterns Area of Outstanding Natural Beauty (AONB). Additionally, through the design iteration process the final site boundary may differ slightly but will not be significantly greater in extent. **Figure 1** gives a suitable representation of the approximate area of the Proposed Development.

Planning Policy Context

In May 2019, the UK Government declared a 'climate and environment emergency' and as a result set the target to bring all greenhouse gas emissions to net zero by 2050. Within the National Planning Policy Framework (NPPF), it is clear that planning must facilitate the transition to a renewable and low carbon economy and help deliver the aims of the UK Government. In December 2020, the UK Government published the Energy White Paper 'Powering our Net Zero Future' indicating Onshore Wind and Solar will be key building blocks of the future generation mix along with offshore wind.

The UK Government's recent British Energy Security Strategy document (April 2022) states that the UK Government "*will continue supporting the effective use of land by encouraging large scale [solar PV] projects to locate on previously developed, or lower value land, where possible, and ensure projects are designed to avoid, mitigate, and where necessary, compensate for the impacts of using greenfield sites*".

The Proposed Development has the potential to contribute to these targets with an increased production of energy from renewable sources. A Planning Statement will accompany the Planning Application making reference to key national policies and the Local Development Plan (LDP) policies and criteria.

Baseline and Characteristics of Potential Impacts

The following sections outline the environmental baseline and characteristics of any potential impacts that may be caused by the Proposed Development. **Figure 2** displays the key site constraints.

Ecology and Biodiversity

Nature Conservation Designations

The Site does not overlap with any statutory nature conservation designation. There are several national designations within 5km of the Site, which are presented in **Table 1**.

Table 1: Nature Conservation Designations within 5km

Name	Designation	Distance to site	Designated Features
Aston Rowant	Site of Special Scientific Interest (SSSI) & Special Area of Conservation (SAC)	~1.4km south	SSSI, Lowland calcareous grassland: Favourable SAC, Annex 1 habitats: *Juniperus communis* formations on heaths or calcareous grasslands.
Aston Rowant Woods/ Chilterns Beechwoods	SSSI & SAC	~2.1km south east	SSSI, Broadleaved, mixed and yew woodland: Favourable SAC, Annex 1 habitats: *Asperulo-Fagetum* beech forests
Shirburn Hill	SSSI	~2.2 km south	Lowland calcareous grassland: Unfavourable -recovering
Aston Rowant Cutting	SSSI	~2.5km south east	Earth heritage: Favourable
Knightsbridge Lane SSSI	SSSI	~2.7km south west	Broadleaved, mixed and yew woodland: Favourable
Wormsley Chalk Banks	SSSI	~3.0km south east	Lowland calcareous grassland: Unfavourable -recovering
Watlington & Pyrton Hills	SSSI	~3.7 km south	Lowland calcareous grassland: Unfavourable -recovering
Chinnor Hill	SSSI	~5.5km south east	Lowland calcareous grassland: Unfavourable -recovering

Considering the distances of the nature conservations designations from the site, together with the nature of the Proposed Development, the potential for significant effects on SSSIs and SACs is considered unlikely.

No non-statutory nature conservation designation has been identified within 5 km of the site.

Habitats and Species

An extended UK Habitat Classification (UKHab) survey, including appropriate buffers, will be carried out of the site based on the standard UKHab Classification methodology (Butcher *et al*., 2020). This will be presented within a Preliminary Ecological Appraisal (PEA) report, prepared in line with the appropriate guidance (CIEEM, 2017).

An initial review of the Site via aerial imagery indicates that it comprises arable grassland, surrounded by hedgerow, broadleaved woodland and further arable land. There are field drains adjacent to the south west red line bound, and there are several ponds within 500m. This has been confirmed following a site visit to the Proposed Development site.

The presence of the above listed habitats indicates that there is the potential for protected species to be present, including but not limited to, roosting bats, badger, water vole and Great Crested Newt (GCN). The habitat survey will identify if protected species are present and if any mitigation is required. The PEA is scheduled to be completed in June 2022.

Landscape and Visual

The site is not located within a designated landscape. The nearest statutory designation is Chilterns AONB approximately 1.4km south of the site. There are two Registered Parks and Gardens within 5km of the site: Shirburn Castle approximately 2.4km south west and Thame Park around 3.5km north.

Based on the Oxfordshire Landscape and Wildlife Study (2004), the site lies within the Estate Farmlands (LCT4) Character Type, and specifically within Landscape Character Area (LCA 4G) Chinor to Watlington (CH/1). Here, there is a strongly undulating landscape characterised by large, geometric arable fields. Woodland cover is not prominent and is largely confined to small clumps around farmhouses and occasional small, geometric plantations.

The site is within the Eastern Vale Fringes (LCA 5) of the South Oxfordshire Landscape Character Assessment. The landscape type is considered as semi-enclosed rolling downs with the following key characteristics:

- Distinctively smooth rounded landform of low chalk or greensand hills.
- Dominance of intensive arable cultivation but some areas of permanent pasture or grassland.
- Large-scale field pattern contained within a comparatively intact structure of hedges, with hedgerow trees and frequent linear belts or stands of planted woodland.
- Distinctively ‘grey’ and flinty soils.
- Rural character with few detracting influences, although main roads create some localised intrusion.
- Semi-enclosed landscape with moderate intervisibility.

Eastern Vale Fringes contains part of National Character Area (NCA) 108 Upper Thames Clay Vales and part of NCA 110 Chilterns.

The settlements of Lewknor and Aston Rowant lie to the south and south east of the site. The site occupies two areas either side of the M40 which comprise arable and grazing land. The Ridgeway National Trail coincides with Long Distance Walkers Association Route ‘Swans Way’ which is located around 1.3km south of the site. The Oxfordshire Way is situated 1.4km west of the site.

The Proposed Development would introduce new infrastructure (solar panels) into an urban fringe landscape currently utilised for agricultural purposes. It is acknowledged that there will be some landscape and visual effects arising as a result of the Proposed Development.

Based on initial analysis, the main visual receptors of the Proposed Development are likely to be users of The Ridgeway National Trail, Swans Way, the Oxfordshire Way and the Chilterns AONB as well as residents of Lewknor village, Aston Rowant and Postcombe. Figure 3 presents the Zone of Theoretical Visibility (ZTV).

Once landscape mitigation measures are embedded into the design, it is unlikely that the effects arising would be sufficiently significant to reach the threshold which would necessitate EIA. Landscape and visual effects can be excluded from consideration of whether EIA is required to support the planning application.

A Landscape and Visual Assessment (LVA) will be undertaken which will establish a full visual baseline and highlight potential effects arising as a result of the Proposed Development.

Archaeology and Cultural Heritage

There are no World Heritage sites, Scheduled Monuments, Registered Battlefields, Registered Parks and Gardens or Listed Buildings located within the site. There are thirty-four Listed Buildings within 1km of the site boundary. The Church of St. Margaret (List ref 1182190) and Church Farm (List ref 1368861) are the nearest Grade I Listed Buildings, both situated ~850m south in Lewknor. The Battle of Chalgrove 1643 Registered Battlefield is located approximately 5.6km from the site. The village of Lewknor is a Conservation Area.

It is not anticipated that the Proposed Development would have any significant indirect effects on cultural heritage receptors in the area. There is potential for direct effects on known and hitherto unrecorded buried archaeological remains, but such effects could be mitigated through design and/or offset through preservation by record. Consultation will be undertaken with the local authority archaeological advisor, and any potential direct or indirect effects on identified cultural heritage receptors in the vicinity could be assessed as part of the planning process without the need for an EIA.

Geology, Hydrology and Hydrogeology

The bedrock beneath the site and the wider area is primarily West Melbury Marly Chalk Formation which is composed of off-while, soft marly chalk and hard grey limestone arranged in couplets. To the west of the site there is a seam of Glauconitic Marl Member which is described as calcareous glauconitic sand and glauconitic sandy silty chalk. No superficial deposits are identified on British Geological Society (BGS) mapping.

The hydrogeology in the local area is Marly Chalk aquifer, which is designated a highly productive aquifer and can yield up to 5 l/s from wells with headings.

There are no watercourses located within the site. The closest watercourse is approximately 30m from the western boundary of the western area of the site. The extent of land drainage is unconfirmed; however, it is anticipated that some drainage infrastructure will be present within the site.

Review of the Environment Agency (EA) flood map for planning shows the site is entirely within Flood Zone 1, i.e., very low flood risk from rivers and the sea. There are areas of localised surface water flood risk on the southern edge of eastern field, against the M40 embankment. Localised surface water flood risk is also identified in the northern extent of the site. A Flood Risk Assessment will be undertaken to inform the suitable siting and design of flood-sensitive infrastructure such as the site substation and to identify a suitable drainage strategy for the site.

The site is located in a Drinking Water Safeguard Zones (Surface Water).

Transport and Access

For the operational phases of the Proposed Development minimal impact on the adjacent and wider road network will be caused, and no abnormal loads are anticipated. The site is located adjacent to Junction 6 of the M40 motorway. The local road infrastructure is currently being used as a residential transport route and for the transportation of agricultural loads. Therefore, it is suitable in its current state for all the traffic and transport required for the construction, operation and decommissioning of the Proposed Development.

Nevertheless, a high-level Transport and Access Study will be undertaken, including consultation with local road officers and estimation of construction loads/trip numbers to assess the potential impact of construction traffic on the local road network. It appears likely that the construction phase will have a short-term impact on the immediate road network due to increased traffic. However, the Proposed Development's potential impact on the surrounding road network is likely to be minimal.

A PRoW traverses the eastern land parcel from the south west to the north. There is also a Bridleway which borders the southern site boundary. Potential disturbance or disruption to this route during construction will be considered as part of the Transport and Access Study, with consideration given to suitable mitigation measures, ensuring that a suitable footpath connection can be retained.

Arboriculture

The land use is predominantly arable, except for some small blocks of woodland and individual trees. The site is generally enclosed by hedgerows and/or trees, with some more open boundaries to the south west and north eastern extent of the site.

A number of the trees and hedgerows surrounding the site are protected by a Tree Preservation Order (TPO). All existing trees and hedgerows will be retained, retaining valuable habitat for a range of species. An appropriate buffer will be established for all trees and hedgerows to ensure there will be no disturbance to any trees with TPOs. Proposed arboriculture surveys and assessment are outlined in the proposed assessment section.

Glint and Glare

Glint and glare in this context are the effects of reflected sunlight causing harm or discomfort to a sensitive receptor. A glint can be defined as the momentary receipt of a bright light and a glare can be defined as the receipt of a bright light over an extended or continuous period of time.

The glass used in solar PV panels is specifically designed to absorb as much sunlight as possible to convert to electricity. Consequently, the panels have a lower level of reflectivity (potential for glare) than many other man-made and natural features such as conventional windows, polytunnels, glasshouses, water, snow, etc.

Noise

The nearest receptor is situated approximately 70m south west with the village of Postcombe to the north. Considering the baseline noise from the proximity to the M40 and A40 motorway, the noise generated during the construction of the Proposed Development is unlikely to cause any significant adverse effects to any of these receptors and can be suitably managed via good construction practices and implementation of a Construction Environmental Management Plan (CEMP).

The operational phase of the Proposed Development will produce essentially no noise from on-site infrastructure except for the substation, which will be appropriately sited and designed to ensure no significant noise impacts. Therefore, it is not anticipated that the Proposed Development would have any significant impact on noise-sensitive receptors. The Applicant does not propose to undertake a noise assessment to support the planning application.

Air Quality

Construction-related air quality impacts (e.g. dust and emissions from construction plant) would be controlled though the implementation of standard mitigation measures set out in a CEMP for the Proposed Development.

Land Use and Soil

Based on Natural England Provisional Agricultural Land Classification(ALC) the site is Grade 2 (land has minor limitations which affect crop yield, cultivations or harvesting). However, Agricultural Land Classification (ALC) surveys were undertaken at the site in December 2021 indicating the site ranges between Grade 3a and 3b.

However, given the temporary nature of the development, with potential to return the land to its current use following decommission, no detrimental impact is anticipated.

Cumulative Developments

According to the UK Renewable Energy Planning Database (updated in May 2022) and a search of the South Oxfordshire District Council planning portal, there appears to be seven operational/consented ground

mounted solar farms within the council area, ranging from 1.2 MW to 49.9 MW. There are an additional two solar farms, each of 49.9 MW, currently in the planning system.

Proposed Assessments

On the basis that South Oxfordshire District Council agree with this report and advise an EIA is not required, it is proposed that detailed reports on technical impacts as well as a Design and Access Statement and Planning Statement will accompany the planning application, to ensure that the Council have sufficient information to determine the application. The follow sections highlight the proposed environmental and technical assessments which would support the planning application.

Ecology and Biodiversity

As previously noted, an extended UK Habitat Classification survey will be carried out of the site and a 100m buffer (access permitting) with the results presented within a PEA report.

The PEA will provide details of survey methods, baseline results, details of further survey required, standard, good practice mitigation relating to the habitats/species found and opportunities for ecological enhancement of the site.

Whilst not a full botanical or protected species survey, the extended UKHab survey enables an experienced ecologist to obtain an understanding of the ecology of a site, such that it is possible to:

- Confirm the nature conservation significance of a site and identify important ecological features using the approach described in CIEEM's Ecological Impact Assessment Guidelines (CIEEM, 2018), and assess whether the potential for impacts on habitats/species is likely to represent a material consideration in planning terms; or
- Establish the scope and extent of any additional specialist ecological surveys that will be required before such a confirmation can be made.

The UKHab survey will also a Preliminary (bat) Roost Assessment (PRA) to identify and categorise roost suitability in trees and structures within the Site and a 50m buffer (Collins, 2016), and a Habitat Suitability Index (HSI) of around four ponds (access permitting) within 500m of the site (Oldham *et al.*, 2000), with the aim of determining suitability and therefore further survey requirements for GCN.

If any evidence of protected/notable habitats and/or species is recorded, or a potential for presence is confirmed in the extended Phase 1 habitat survey, further targeted survey may be required.

Due to the arable land present within and adjacent to the site, it is unlikely any further vegetation/NVC survey will be required. There are no international designations for birds present in proximity to the site, therefore it is considered breeding or overwintering bird surveys will not be necessary.

Overall, the PEA (informed by the extended UKHab survey), and any additional survey and reporting that may be required, will identify mitigation and opportunities for enhancement, as appropriate.

Biodiversity Net Gain

Biodiversity Metric tool will be utilised with the survey data and a range of scenarios will be run to provide guidance for BNG recommendations and these will be offered as part of a Biodiversity Enhancement Plan (BEP). The BEP will describe measures that will be implemented to enhance biodiversity within the Site, including but not limited to, native planting recommendations and suitable locations for provisions such as nest boxes, in line with the priorities of South Oxfordshire District Council.

Landscape and Visual

A Landscape and Visual Appraisal (LVA) will be undertaken to establish a full landscape and visual baseline and identify potential effects arising as a result of the Proposed Development. The LVA will be prepared in accordance with published best practice, namely the Guidelines for Landscape and Visual Impact Assessment (Third Edition), Landscape Institute and IEMA 2013 (GLVIA3) and associated technical guidance notes published by the Landscape Institute. The LVA will be undertaken by Chartered Landscape Architects from Stephenson Halliday which is a Registered Practice of the Landscape Institute.

The LVA will consider the potential effects upon:

- landscape fabric and landscape character;
- the special qualities of any landscape designations; and
- visual receptors including residential, transport and recreational receptors.

Although linked, landscape and visual effects are considered separately. Landscape effects derive from changes in the landscape fabric, which may result in changes to the character, whereas visual effects are the effect of these changes as experienced by people (visual receptors). Landscape and visual effects are also classified into two categories, those experienced during the construction phase (temporary or short term) and those during the operational phase of the development (residual or long term).

A landscape mitigation strategy will be developed which will be complimentary to the ecological and other environmental mitigation requirements. The appraisal of effects will take all proposed mitigation into account cognisant of the establishment period for any new planting.

Based on preliminary analysis it is proposed to set the study area as a 3km offset from the site boundary. Initial site work suggests that visibility will be constrained to a much closer proximity than this.

The LVA will be supported by plans, ZTVs and visualisations as necessary. The specific scope of the LVA, including proposed viewpoints and visualisations, will be agreed with South Oxfordshire District Council.

Archaeology and Cultural Heritage

A desk-based appraisal will be undertaken to establish the following:

- A Historic Environment Desk-Based Assessment (HEDBA) to establish historic environment baseline, including:
  - Identification of all known heritage assets within 1km of Site boundary (as recorded by the Oxfordshire Historic Environment Records (HER) and the National Heritage List for England);
  - Map regression;
  - Review of Aerial Photographs as held by Historic England Archives;
  - Review of available LiDAR data;
- A walkover survey.

The results of the desk-based appraisal will identify recorded archaeological assets on and near the site and to assess any potential direct or indirect effects of the Proposed Development on identified cultural heritage receptors in the vicinity.

Consultation will be undertaken with Historic England and the local authority archaeological advisor to agree the scope of the setting assessment. A Heritage Impact Assessment, based on the findings of the HEDBA, would accompany the Planning Application.

Geology, Hydrology and Hydrogeology

A desk study review will be undertaken to identify watercourse and aquifer sensitivity, and any potential contamination risks to the site hydrology and hydrogeology. A Flood Risk Assessment will be completed in line with the Environment Agency requirements, including a range of works to evaluate the risk to the site from flooding and identify appropriate mitigation measures. This will include a site walkover to consider:

- general topography and fall across the site;
- comparative analysis of proposed locations/layout of solar panels and other infrastructure against mapped areas of surface water flood risk;
- confirmation of any areas of erosion/deposition;

- confirmation of any watercourses, surface water flow paths and drainage infrastructure not identified on available mapping;
- photos of watercourses to show the channel, banks, floodplain, and any culverts or structures; and structural information: details of any structures, such as culverts, bridges and weirs, which may influence water levels.

Information received from the site walkover, alongside consultation with South Oxfordshire District Council, will be used to specify the scope of further assessment works. A Flood Risk Assessment and Drainage Strategy will accompany the planning application.

Arboriculture

A baseline tree survey will be undertaken. For this, trees, woodland and hedgerows would be surveyed as individuals or groups in accordance with BS5837:2012: *Trees in relation to design, demolition and construction – Recommendations*. The Tree Survey Report is a stand-alone document which does not refer to any development proposal and shows the trees in their current context. The Tree Survey Report includes the schedule providing details of trees, a Tree Survey Plan and a Tree Constraints Plan. The Tree Constraints Plan should help inform layout design based on the constraints posed by trees.

Once the Proposed Development has a design freeze we will prepare an Arboricultural Impact Assessment. This will comprise a report including a tree removal / tree retention summary, a description of the development proposed and specific details of how this will impact retained trees, and details of mitigation measures proposed to minimise tree impact as appropriate.

Transport and Access

The Applicant proposes to submit a high-level Transport and Access Study with the planning application, indicating the proposed construction and maintenance routes and access. The Proposed Development is expected to have minimal impact on the adjacent and wider road network, and no abnormal loads are anticipated. The current road infrastructure appears suitable in its current state for all the traffic and transport required for the construction, operation and decommissioning of the Proposed Development. The Transport and Access Study will involve consultation with local road officers to assess the impact of potential construction traffic on the local road network.

Glint and Glare

Once the site layout is finalised, an initial screening exercise will be conducted alongside consultation with South Oxfordshire District Council to determine whether a glint and glare assessment is required. Given the characteristics of the proposed PV units, as described above, it is proposed that a glint and glare assessment is not necessary to support the planning application.

Noise

As outlined above, it is not anticipated that the Proposed Development would have any significant impact on noise-sensitive receptors subject to appropriate siting and design of the substation and control of construction-phase noise through good construction practices and implementation of a CEMP. Therefore, the Applicant does not propose to undertake a noise assessment.

Air Quality

It is not anticipated that the Proposed Development would have any significant effects on air quality. The Applicant does not propose to undertake an Air Quality Assessment.

Land Use and Soil

A Land Use Assessment will be undertaken to establish the impact of modifying the land use of the site, specifically assessing the impact of the restricting agricultural use of the site for the duration of its operation as a solar PV array. An Agricultural Land Classification (ALC) survey report will be prepared to assess the land quality.

Summary of Proposed Technical Studies

In summary, the following technical studies and reports will be provided in support of the planning application:

- Ecology and Biodiversity Assessment, informed by a Phase 1 Habitat Survey;
- Landscape and Visual Appraisal;
- Historic Environment Desk-Based Assessment and Heritage Impact Assessment;
- Flood Risk Assessment and Drainage Strategy;
- Arboricultural Assessment;
- Transport and Access Study;
- Land Use Assessment;

These technical reports will be collated as appendices to an Environmental Supporting Information Report (ESIR) which will describe the site and the Proposed Development, provide planning policy context and summarise the conclusions of each assessment. A Planning Statement and a Design and Access Statement will also be submitted in support of the planning application.

Conclusions

On review of the baseline and due to no legislative requirement for EIA for the Proposed Development, the Applicant considers the technical studies as proposed above as appropriate support for this planning application without the need for an EIA; and requests confirmation of this from South Oxfordshire District Council.

All assessments will be subject to further discussion with relevant consultation organisations and will provide South Oxfordshire District Council planning officers with sufficient information to evaluate and determine the planning application. This is predicated on an approach which assumes best practice mitigation will be implemented throughout the design, construction and operation of the Proposed Development and therefore significant adverse residual effects on the environment are considered unlikely. We would be grateful if South Oxfordshire District Council could confirm whether the proposed scope of works is acceptable and provide an EIA Screening Opinion for the Proposed Development.

Yours sincerely

Emma Bathgate
Senior Environmental Consultant, ITPEnergised

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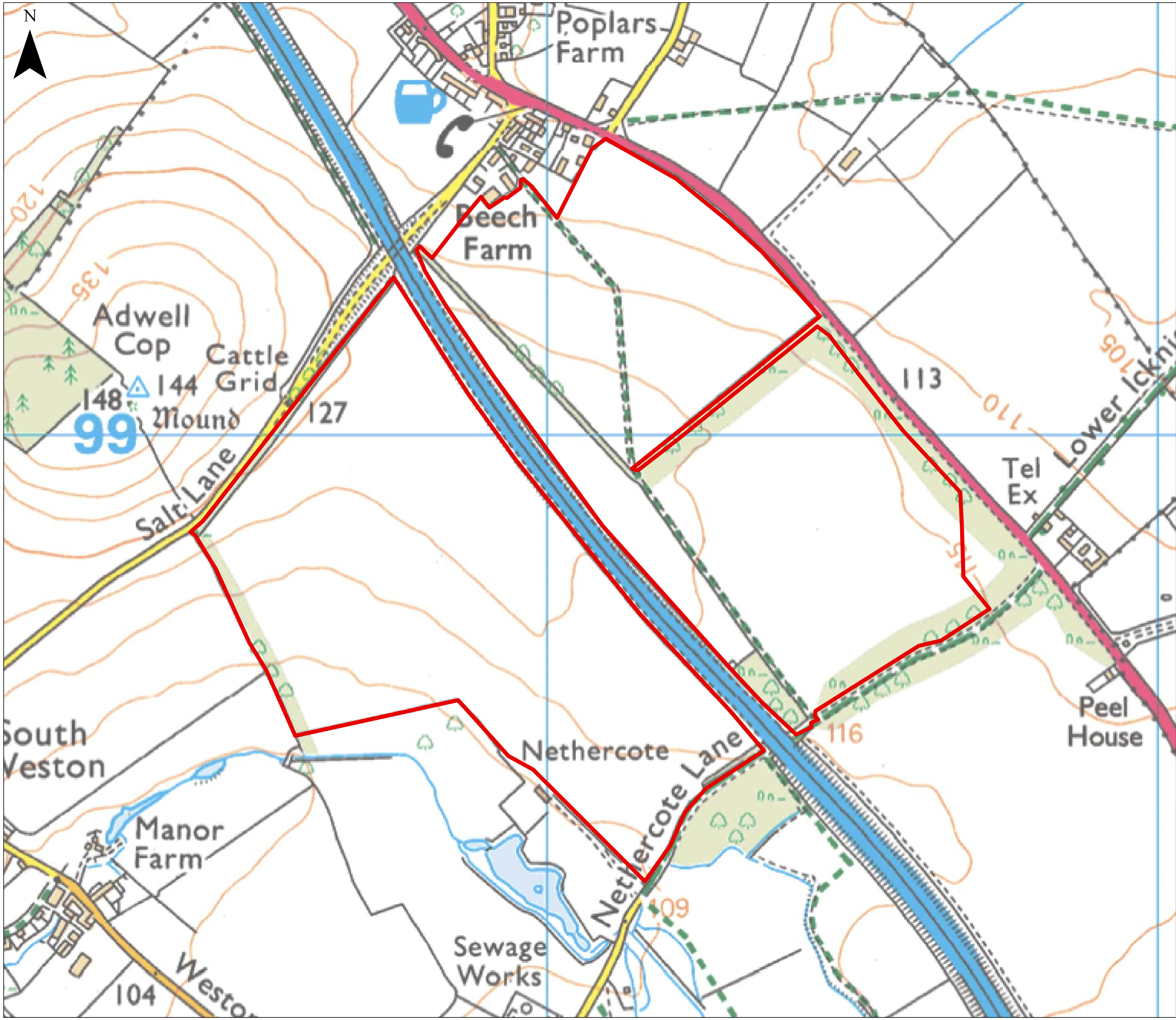
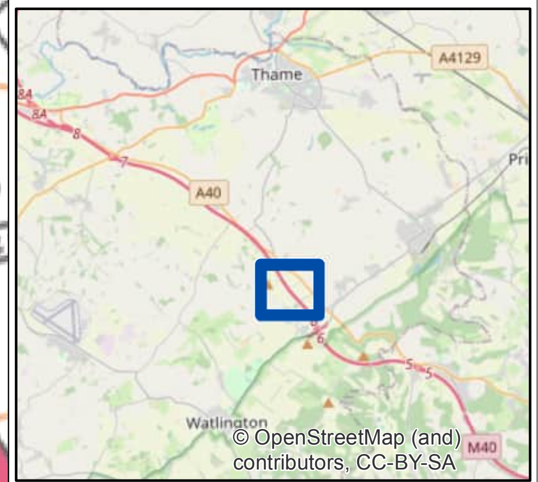


Key

Indicative Site Boundary



0 0.1 0.2 km

Scale 1:6,000 @ A3

solar2 ITPENERGISED

Lewknor Solar Farm

Figure 1(a)

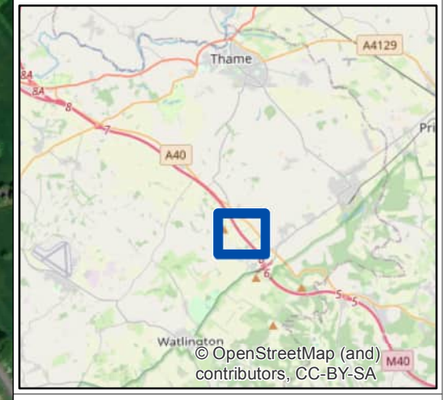
Site Location Plan

Date: 10/06/2022	Drawn by: NH	Checked by: EB	Version: V1.0

Project Number: 3206

Key

Indicative Site Boundary



0 0.1 0.2 km

Scale 1:6,000 @ A3

solar2 ITPENERGISED

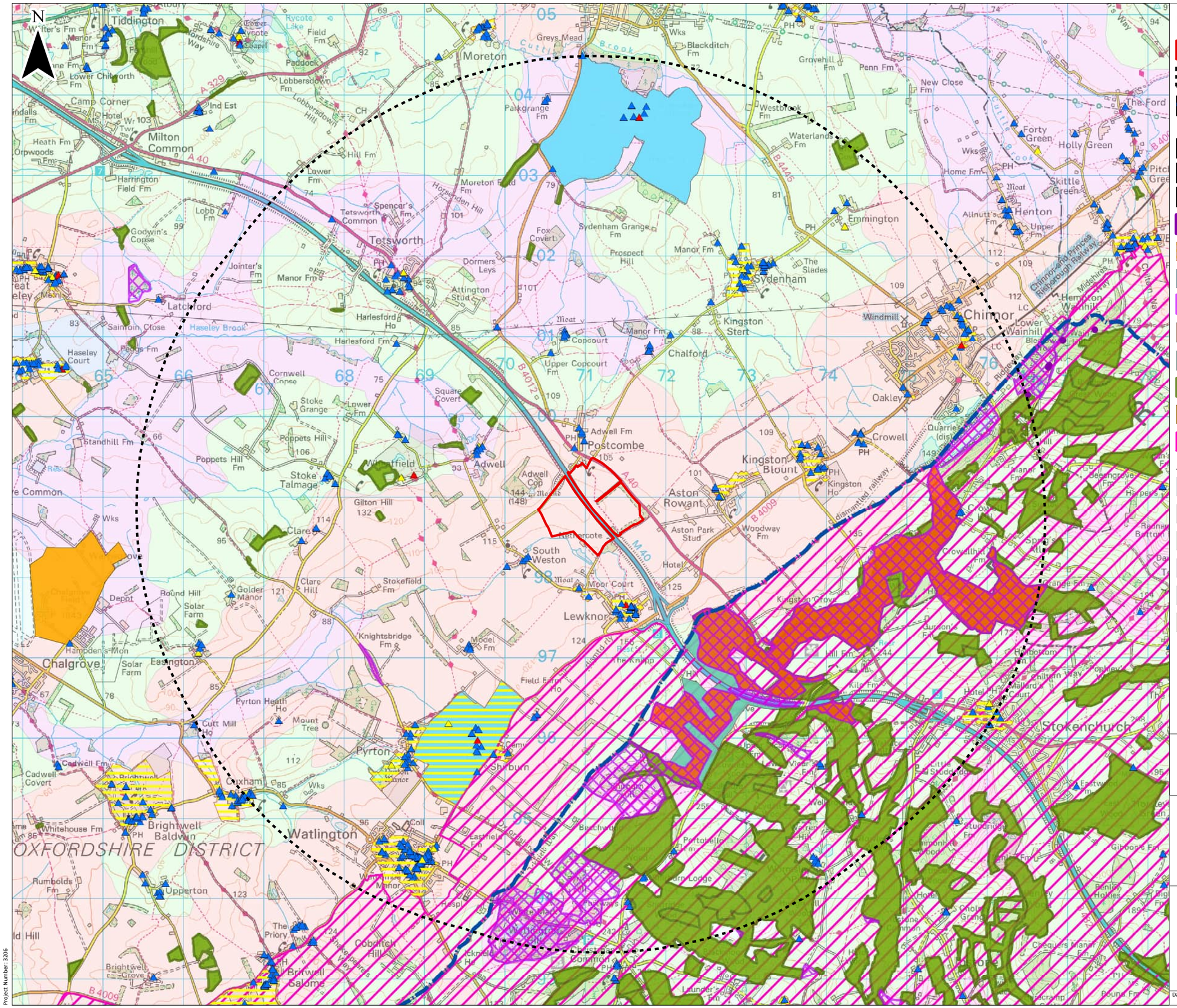
Lewknor Solar Farm

Figure 1(b)

Site Location Plan

Date:	Drawn by:	Checked by:	Version:
10/06/2022	NH	EB	V1.0

Project Number 3206



KEY

- Indicative Site Boundary
- 5km Site Buffer
- National Trail

Listed Buildings

- Grade I
- Grade II
- Grade II*
- Scheduled Monuments
- Conservation Areas
- Parks and Gardens
- Sites of Special Scientific Interest
- Special Areas of Conservation
- National Nature Reserves
- Ancient Woodland
- Battlefields
- Areas of Outstanding Natural Beauty

Agricultural Land Classification (Provisional)

- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Non Agricultural
- Urban

0 1 2 km

Scale 1:45,000 @ A3

solar2 ITPENERGISED

Lewknor Solar Farm

Figure 2

Constraints Map

Date:	Drawn by:	Checked by:	Version:
21/06/2022	NH	EB	V1.0

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LKS_004_ZTV.qgz

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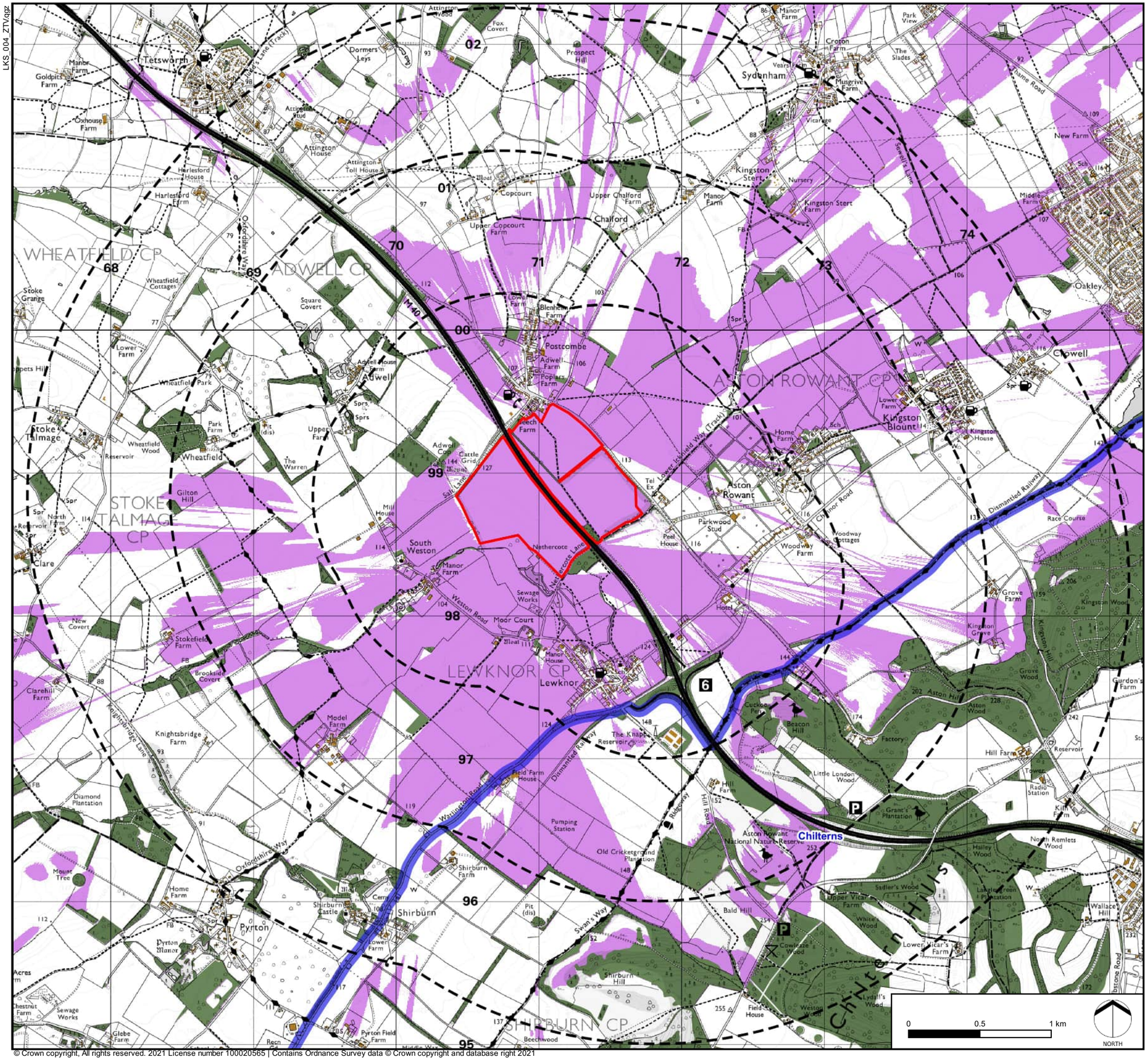
FIGURE 3

Zone of Theoretical Visibility (ZTV)



KEY

- Site Boundary
- Distance Radii fromsite boundary (1, 2 and 3km)
- Buildings (modelled at 7.5m)
- Woodland (modelled at 15m)
- Chilterns Area of Outstanding Natural Beauty

Zone of Theoretical Visibility (3m to tops of panels)

- Solar array may be visible

FIGURE DATA:
This figure has been based on the following data:

Layout file: 2022_06_09_obs_ZTV_5m_DSM
Terrain data: 5m_DSM
Viewer's eye height: 2m above ground level
Calculation grid size: 5m

NOTES:
This drawing is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the Viewshed routine in the Visibility Analysis plugin for QGIS.

The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and buildings.

A digital surface model (DSM) has been derived from OS Terrain DEFRA LiDAR 2020 2m DTM height data with the locations of woodland and buildings taken from the OS Open Map Local dataset. Buildings have been modelled with an assumed height of 7.5m and woodland an assumed height of 15m, representing a conservative estimate of average heights within the study area.

The model does not take into account some localised features such as small copses, hedgerows or individual trees and therefore still gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be less than that suggested by this plan.

The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a derived DSM and has a 5m^2 resolution.

Projected Coordinate System: British National Grid

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