



**THE DROVES**  
SOLAR FARM

# **The Drovers Solar Farm**

**Preliminary Environmental Information Report**

**Volume I, Chapter 7: Ecology and Biodiversity**

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Date: May 2025

PINS Reference: EN0110013



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## 7 Ecology and Biodiversity

### 7.1 Introduction

- 7.1.1 This chapter of the PEIR presents the preliminary information of the potential for significant effects in relation to ecology and biodiversity. The information presented within this chapter has been informed by the design information of the Scheme provided in **Volume I, Chapter 5: Scheme Description**.
- 7.1.2 Information considered in this chapter includes relevant ecology and biodiversity policy and guidance, baseline ecology and biodiversity and sets out the methodologies and approaches intended to be used to inform the ecology and biodiversity chapter of the Environmental Statement (ES) for the Scheme. This is realised through a description of the ecology and biodiversity baseline conditions (as they are understood at time of writing May 2025). This chapter of the PEIR details the findings of work undertaken to date (May 2025) and presents a preliminary assessment of the likely significant effects arising from the Construction, Operational and Decommissioning Phases of the Scheme upon ecology and biodiversity. Relevant receptors considered within the assessment include statutory and non-statutory ecological designations, priority habitats, protected species and invasive non-native species. This chapter also considers proposed avoidance, mitigation and compensation measures and any residual effects following the implementation of such measures.
- 7.1.3 Embedded mitigation measures are presented, where necessary, and discussed to minimise the impacts of the Scheme to an acceptable level (i.e. to a residual minor or negligible effect), during the Construction, Operation and Decommissioning Phases.
- 7.1.4 This chapter should be viewed as a preliminary assessment that will be updated and refined as necessary, particularly as the results of further evaluation become available and as the Scheme design evolves. Initial assumptions have been made based on the survey and background information available to date and professional judgement. The PEIR does not replicate or act as a draft ES but rather aims to enable consultees to understand the likely environmental effects of the Scheme and helps to inform consultation responses during the pre-application stage.

#### Consultation

- 7.1.5 The content and assessment methodology contained within this chapter has been informed by the Scoping Opinion from the Planning Inspectorate (PINS) dated 18 December 2024 (**Volume III, Appendix 2.2**) as well as further updated and informed following consultation with key stakeholders in relation to ecological matters, in particular including further consultation with Natural England (via their Discretionary Advice Service) and Norfolk Wildlife Trust.
- 7.1.6 Consultation feedback received throughout the pre-application phase of the Scheme has been considered in preparing this PEIR chapter. Further detail on consultation undertaken is included at **Volume III, Appendix 7.1**.



## Legislation, Planning Policy and Guidance

- 7.1.7 A review of the Legislation, Policy and Guidance that is relevant to the ecology and biodiversity assessment of the Scheme is included at **Volume III, Appendix 7.1**. The review demonstrates that the Scheme has been developed in accordance with the requirements identified in **Volume III, Appendix 7.1**.

## 7.2 Assessment Methodology

### Assessment Scope

- 7.2.1 Consideration of the scope of the assessment of likely significant effects set out in this PEIR chapter in relation to ecology and biodiversity receptors has been informed by the Scoping Opinion (**Volume III, Appendix 2.2**) received from the Planning Inspectorate and other statutory bodies such as Natural England. Further consultation is ongoing with stakeholders including Natural England at the time of submission of the PEIR).
- 7.2.2 The assessment of potential impacts on ecology and biodiversity receptors will be undertaken following current good practice provided by the Chartered Institute of Ecology and Environmental Management (CIEEM) [Ref 7-1].
- 7.2.3 Ecological features present within the survey area of the survey work that have the potential to be affected by the Scheme will be placed within their relative biodiversity value and geographic context. This will identify those features that require further assessment and consideration in the ES.
- 7.2.4 The assessment of the likely significant effects on ecological features is based on both the 'importance' of a feature ('sensitivity' in EIA terms) and the nature and magnitude of the impact that the Scheme is likely to have. Impacts may be direct (e.g., the loss of species or habitats), or indirect (e.g. effects due to noise, dust or disturbance). The assessment process involves:
- Identifying and characterising impacts
  - Incorporating measures to avoid and mitigate (reduce) these impacts (e.g. by maximising existing habitat retention, implementing sensitive lighting, implementing works exclusion areas to safeguard important ecological features, and protected species licensing where necessary)
  - Assessing the significance of any residual effects after mitigation
  - Identifying appropriate compensation measures to offset significant residual effects (e.g. through habitat creation, or bespoke as requirement for protected species requirements, if required); and
  - Identifying opportunities for ecological enhancement.
- 7.2.5 Based on this context, the nature of the effect is characterised and considered under the following variables:
- Positive - a change that improves the quality of the environment e.g. by increasing species diversity, extending habitat or improving water quality. This may also include halting or slowing an existing decline in the quality of the environment



- Negative – a change which reduces the quality of the environment e.g. destruction of habitat, removal of foraging habitat, habitat fragmentation, pollution
- Extent – the spatial or geographical area over which the impact/effect may occur under a suitably representative range of conditions (e.g. noise transmission under water)
- Magnitude - refers to size, amount, intensity and volume. It should be quantified if possible and expressed in absolute or relative terms e.g. the amount of habitat lost, percentage change to habitat area, percentage decline in a species population
- Duration – the time for which the impact is expected to last prior to recovery or replacement, i.e. short-term or long-term
- Reversibility – an effect may be irreversible in that recovery is not possible within a reasonable timescale or there is no reasonable chance of action being taken to reverse it, i.e. permanent or temporary. Some changes may only cause an impact if they coincide with critical life-stages or seasons, whilst frequent events may cause a greater effect than a single event
- Timing - the timing of an activity (e.g. seasonal considerations to life-stages); and
- Frequency – the number of times an activity occurs, and the implications arising from the repetition of potentially disturbing effects. Timing and frequency can be considered together to assess the likelihood of reversing impacts within a given time-scale subject to the sensitivity of the receptor, and the reasonable actions.

7.2.6 Those receptors scoped in, as detailed below, will be subject to detailed impact assessment in the ecology and biodiversity chapter of the Environmental Statement (ES) to determine the significance of likely effects arising from the Scheme. The significance of effects on the receptors will be considered across the Construction, Operation and Decommissioning Phases, relative to that receptor's assessed importance and sensitivity (e.g. where qualifying feature(s) and any legal protection(s) associated with a given receptor are undermined / threatened by the potential impact (e.g. habitat loss / pollution events)) across scalable geographic radii (or Zones of influence (ZOI), to be agreed with Natural England, where appropriate), and where necessary, with appropriate mitigation and compensation to alleviate impacts and identify residual effects (if any).

### Scoped In

7.2.7 The effects listed at Table 7.1 have been scoped into the assessment in relation to ecology and biodiversity receptors during the Construction, Operation and Decommissioning Phases of the Scheme.

**Table 7.1 Ecological Receptors Scoped into the Assessment**

Receptor	Nature of Effect(s)
International Designations: Breckland SPA	Ecological Potential air quality impacts during Construction and Decommissioning Phases.



Receptor	Nature of Effect(s)
National Ecological Designations: Breckland Forest SSSI	Potential air quality impacts during Construction and Decommissioning Phases (in response to Natural England consultation comments within the Scoping Opinion).
National Ecological Designations: River Nar SSSI	Potential air quality and hydrological impacts and pathways during Construction and Decommissioning Phases (in response to Natural England consultation comments within the Scoping Opinion).
Statutory Ecological Designations - Statutory Designations:  River Nar SSSI, Castle Acre Common SSSI, Breckland Forest SSSI, Narborough Railway Embankment SSSI, Norfolk Valley Fens SAC, East Walton and Adcock's Common SSSI, Breckland SAC, Roydon Common Ramsar, Roydon Common & Dersingham Bog SAC, Dersingham Bog Ramsar, River Wensum SAC, The Wash SPA & Ramsar, The Wash & North Norfolk Coast SAC	Potential direct and indirect effects (in response to Natural England consultation comments within the Scoping Opinion – matters subject to further consideration through further consultation through Natural England's DAS).
Non-statutory Ecological Designations.  CWS: Land Adjacent to River Nar (Ref. 895, 945 & 902); Priors Meadow; Lake West of Castle Acre; Mill House Lake; Castle Acre Castle; Mill House; Narford Lake;; The Carr; and Lynn Road Disused Railway.  RNR: River Road U33086; River Road U22086; Priors Road U22074; and Walton Road C65 RNR	Potential direct and indirect effects (in response to Natural England consultation comments within the Scoping Opinion – matters subject to further consideration through further consultation through Natural England's DAS).
Non-statutory Ecological Designations:  River Road RNRs	Potentially significant habitat loss and deterioration arising during Construction and Decommissioning Phases.



Receptor	Nature of Effect(s)
Irreplaceable Habitats (Veteran Trees)	Potentially significant effects arising from habitat loss and deterioration during Construction, Operation and Decommissioning Phases.
Habitats and Flora (Trees, Woodlands, Ponds and Hedgerows)	Potentially significant effects arising from habitat loss and deterioration arising during the Construction, Operation and Decommissioning Phases.
Protected Species: Bats, Badger, Breeding and Wintering Birds, Reptiles, & Other Mammals	Potentially significant effects arising from habitat loss, deterioration, and / or disturbance of protected / notable species, arising during the Construction, Operation and Decommissioning Phases.
Protected Species: Bats and Birds	Potential for overhead lines and related infrastructure to create a barrier to movement during Operational Phase.
Protected Species: Great Crested Newt	<p>Potentially significant effects arising from habitat loss, deterioration, and / or disturbance of protected / notable species, arising from Construction, Operation and Decommissioning.</p> <p>Potential effects in regard to ponds located 250-500m from the Site boundary in line with the Scoping opinion (<b>Volume III, Appendix 2.2</b>)</p>
Invasive Non-native Species (INNS)	<p>Potential for spread of Invasive Non-Native Species (INNS, including species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)) arising during the Construction, Operation and Decommissioning Phases.</p> <p>See <b>Volume III, Appendix 7.1</b>.</p>

### Scoped Out

7.2.8 The effects listed in Table 7.2 have been scoped out of the assessment in relation to ecology and biodiversity receptors, in line with the Scoping Opinion Request (**Volume III, Appendix 2.1**) and Scoping Opinion (**Volume III, Appendix 2.2**) and additional consultation undertaken



to date.

**Table 7.2 Ecological Receptors Scoped out of the assessment**

Receptor	Nature of Effect	Justification
Ecological Designations (All)	Recreational impacts at all stages.	The Scheme does not include any change in population or potential recreational use changes.
Habitats and Flora (Intensive Arable Land, Improved/Semi-improved Grassland, Ditches)	Loss or disturbance of low distinctiveness habitats not representing important ecological features.	Low distinctiveness habitats making up the majority of the Site including intensive arable, improved/semi-improved grassland and ditches are inherently of low ecological value and any loss of these habitats would not represent a significant effect in their own right (the BNG hierarchy does not require avoidance measures to be put in place in regard to low distinctiveness habitats, recognising their low value in comparison to other habitat types), particularly given the commitment/requirement to delivery of overall biodiversity net gain under the Scheme.
Protected Species: Otter and Water Vole	In line with the Scoping opinion ( <b>Volume III, Appendix 2.2</b> ); potentially significant effects arising from habitat loss, deterioration, and / or disturbance of protected / notable species, arising from Construction, Operation and Decommissioning.	Absence of suitable habitats (including as confirmed within Baseline Ecological Survey Report – <b>Volume III, Appendix 7.2</b> )  Proposed to be scoped out pending consultation with Natural England.

### Summary of Scoping

7.2.9 Based on the above, along with further consideration Table 7.3 provides a summary of the ecology and biodiversity receptors scoped in and out in respect of Construction, Operational and Decommissioning Phases of the Scheme.



**Table 7.3 Ecology and Biodiversity Scoping Summary**

Aspect	Construction	Operation	Decommissioning
International Statutory Ecological Designations: Breckland SPA, Norfolk Valley Fens SAC, Breckland SAC, Roydon Common Ramsar, Roydon Common & Dersingham Bog SAC, Dersingham Bog Ramsar, River Wensum SAC, The Wash SPA & Ramsar, and The Wash & North Norfolk Coast SAC	Scoped In	Scoped In	Scoped In
National Statutory Ecological Designations: River Nar SSSI, Castle Acre Common SSSI, Breckland Forest SSSI, Narborough Railway Embankment SSSI, and East Walton & Adcock's Common SSSI	Scoped In	Scoped In	Scoped In
Non-statutory Ecological Designations: River Road RNR (ref. U33086 & U22086), Land Adjacent to the River Nar CWS (ref. 985, 902, & 945), Priors Meadow CWS, Lake West of Castle Acre CWS, Mill House Lake CWS, Priors Road RNR (ref. U22074), Mill House CWS, Narford Lake CWS, The Carr CWS, Castle Acre Castle CWS, Lynn Road Disused Railway CWS, and Walton Road RNR (ref. C65)	Scoped In	Scoped In	Scoped In
Irreplaceable Habitats (Veteran Trees)	Scoped In	Scoped In	Scoped In
Habitats and Flora (Trees, Woodlands, Ponds and Hedgerows)	Scoped In	Scoped In	Scoped In
Invasive Non-native Species	Scoped In	Scoped In	Scoped In
Protected Species: Bats, Badger, Breeding and Wintering Birds, Reptiles, Great Crested Newt, and Other Mammals	Scoped In	Scoped In	Scoped In
Protected Species:	Scoped In	Scoped In	Scoped In



<p>Otter and Water Vole</p> <p>albeit proposed to be scoped out at ES pending consultation with Natural England regarding absence of suitable habitat within the Site</p>			
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### Determining Significance of Effect

- 7.2.10 Using the parameters of the Scheme, likely effects are determined with reference to aspects of the ecological structure and function on which the feature or resource depends and is therefore sensitive to. This includes factors such as the available resources, ecological processes, human influences, historical context, ecological relationships, ecological role or function and ecosystem properties. The assessment includes consideration of potential effects (direct, indirect, secondary, cumulative and residual) on each ecological receptor determined as important.
- 7.2.11 The CIEEM publication ‘Guidelines for Ecological Impact Assessment in the UK and Ireland’ [Ref 7-1] sets out a methodology for the assessment of potential effects arising from development. These methods have been followed and are summarised below.
- 7.2.12 The geographical scale of reference at which ecological receptors are assigned value is provided within Table 7.4 below.

**Table 7.4 Geographical Scales of Reference in relation to ecological receptors**

Designation (Importance)	Receptor Significance
International	Statutory internationally important sites; SPAs, SACs and Ramsar sites supporting an internationally important population of a species or species assemblage.
National	Statutory nationally important sites; SSSIs and National Nature Reserves (NNR) supporting a nationally important population of a species or species assemblage.
Regional (Statutory or Non-Statutory)	Statutory Local Nature Reserves (LNR) or non-statutory supporting locally important populations of a species or species assemblage.
County, District and Local (Parish or Neighbourhood)	Non-statutory sites supporting a species population or species assemblage of



Designation (Importance)	Receptor Significance
	importance at the County to Local level, or, habitats of elevated local bearing.

### Receptor Sensitivity

7.2.13 Receptor sensitivity (value) is assigned based on the geographic frame of reference at which the ecological receptor is deemed to be important. Professional judgement is applied to conflate levels of sensitivity (Negligible – Very High) to the geographic frame of reference (Site Level – International Level), as informed by CIEEM guidelines [Ref 7-2], as set out in Table 7.5, below.

**Table 7.5 Ecological Receptor Sensivity in relation to Geographic Context**

Sensitivity (Value)	Geographic Frame of Reference	Receptor Significance
Very High	International	Statutory internationally important sites; SPAs, SACs and Ramsar sites supporting an internationally important population / assemblage of species and/or habitat(s).
High	National	Statutory nationally important sites; SSSIs and NNRs supporting a nationally important population / assemblage of a species and/or habitat(s).
Medium/High	Regional	Statutory Local Nature Reserves (LNR) or non-statutory supporting regionally important populations / assemblage of species and/or habitats.
Medium	County or District	Non-statutory designations such as County Wildlife Sites, Road-side Nature Reserves, and Local Wildlife Sites supporting county or district important populations / assemblages of species and / or habitat(s).



Sensitivity (Value)	Geographic Reference	Frame of	Receptor Significance
Low	Local (Parish Neighbourhood)	or	Species and habitats of conservation value at the local level (i.e. those listed within the Norfolk Biodiversity Partnerships Species and Habitats Action Plans).
Negligible	Site		Species and habitats that are not protected, and are common and widespread.

### Magnitude of Impact

7.2.14 Based on the above parameters and sensitivity, the magnitude (or scale) of change/effect can be summarised according to Table 7.6. This is set out in relation to adverse effects and beneficial effects across the geographic context (importance).

**Table 7.6 Assessment of Magnitude of Impact**

Magnitude Change	of	Description
Major		A permanent or long-term effect on the receptor, which may result in severe damage to key characteristics and implications for the integrity of the receptor or its conservation status.
Moderate		Impacts resulting in partial loss of or damage to a receptor, which could have implications for the integrity of the receptor or its conservation status.
Minor		Short-term or temporary impacts resulting in only minor loss of or damage to a receptor, unlikely to have implications for the integrity of the receptor or its conservation status.
Negligible		No effect or only a short-term reversible impact with no long-term effect on the receptor.

### Significance of Effect

7.2.15 Based on the nature of the effect, an assessment is then made as to whether the effect on a



habitat or species is likely to be ecologically 'significant'. CIEEM Guidance [Ref 7-1] is clear that the matrix (tabular) approach and categorisation to determine significance should be avoided and discouraged in relation to ecology. The guidance defines a 'significant effect' as:

- 7.2.16 “an effect that either support or undermines biodiversity conservation objectives for ‘important ecological features’ or for biodiversity in general”, going on to state that “significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution).”
- 7.2.17 Significance in relation to individual effects is assigned based on professional judgement taking into account the appropriate geographic scale. For example, a significant effect on a Site of Special Scientific Interest (SSSI) would be of national significance. Notwithstanding this, however, consideration is also given to whether an effect is significant at a scale below the geographic context in which the feature is considered important.
- 7.2.18 For some ecological features (notably designations), there may be an existing statement of the conservation status of a feature and objectives and targets against which the effect can be judged. For example, SSSIs are assessed under six condition categories, namely favourable, unfavourable recovering, unfavourable no change, unfavourable declining, part destroyed, and destroyed. An effect that exerts a change between these condition categories would be considered as significant.
- 7.2.19 Where no existing statement of conservation status is available, an assessment is made against the existing status and condition of the habitat or species population, as recorded by survey data and background information, taking into account the level of ecological resilience or existing conditions that a habitat or species is currently subject to. An effect resulting in a long-term change to the existing background population trend or status at a given geographical level would be considered as significant. In this regard, a significant beneficial effect could be defined as one that prevents or slows an existing decline in the favourable conservation status of a habitat or population as much as one that permitted a population or habitat area to increase.
- 7.2.20 The above paragraphs provide a clear description of the process involved in determining the significance (or otherwise) in relation to individual effects, which will necessarily be determined based on professional judgement, dependent on the nature of the individual effect and receptor. Nonetheless, in order to attempt to quantify this process and allow consistency and comparison with other disciplines across the PEIR, the significance of effects in this chapter are generally considered as follows:
- Major and moderate effects at the local level or above would be considered significant
  - Neutral/negative effects would not be significant
  - Where minor effects are noted, the significance (or otherwise) of these are determined on the basis of professional judgement with due consideration given to the relevant geographical scale, magnitude of effect and sensitivity; and
  - Effects at the Site level would not be considered significant.

## 7.3 Study Area

- 7.3.1 To inform the assessment and extent of the Study Area, consideration has been given to the Zone of Influence (Zol) of the Scheme. The Zol is defined as the area over which ecological



features may be affected by the biophysical changes caused by the Scheme and associated activities. The extent of such changes will typically reduce over distance, and effects experienced are dependent on the sensitivity of individual habitats, species or other ecological features, such that it is difficult to define a specific zone of influence which captures all potential effects arising from the Scheme. As such, two broad zones have been identified:

- A primary zone of influence largely relating to the Site itself, incorporating habitats and associated species directly affected by the footprint of the Scheme and associated works (in terms of habitat loss or damage). This zone also includes areas affected by factors such as noise, vibration, lighting, dust and pollution, the effects of which will be focused within the nearby surroundings (i.e. within 100m) of the Site. Survey work has specifically focused on this area, to allow an assessment of habitats and species directly affected by the Scheme; and
- Beyond this, a wider (or secondary) zone of influence exists, where ecological features may be subject to wider scale effects such as air pollution from traffic or water pollution within the wider river catchment. The assessment of features within this zone is largely based on background information identifying ecological designations, known habitats or species populations of importance which could be sensitive to such wider scale effects.

7.3.2 Statutory Designations of international importance were searched for on the basis of a 25km search radius from the Site. Accordingly, in this context, the Study Area for Statutory Designations of international importance is defined as a 25km search radius from the Site.

7.3.3 Statutory Designations of national importance were searched for on the basis of a 5km search radius from the Site. Accordingly, the Study Area for Statutory Designations of national importance is defined as a 5km search radius from the Site.

7.3.4 Non-Statutory Designations (i.e those of county or district level importance) were searched for on the basis of a 2km search radius from the Site. Accordingly, the Study Area for Non-Statutory Designations is defined as a 2km search radius from the Site.

7.3.5 Following consideration in regard to the relevant Zol (including PINS Scoping Opinion (**Volume III, Appendix 2.2**)), the extent of the Study Area includes a search area extending up to 25km from the Site in relation to statutory designations, with more detailed background records of protected species and non-statutory designations obtained from within 2km of the Site. The land within the Site boundary itself has been subject to survey work as described above and within the Baseline Ecological Survey Report (**Volume III, Appendix 7.2**).

### Assumptions and Limitations of Survey Work

7.3.6 All of the species that are present at the Site would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent during different seasons.

7.3.7 The survey work undertaken to date has been completed in accordance with standard guidelines, within the optimal seasonal period(s) therefore allowing a robust assessment in relation to the relevant receptors, whilst ongoing survey work has similarly been programmed to be completed in line with standard guidelines and within the optimal seasonal period in order to provide a robust evidence base on which to inform the impact assessment. Where survey work remains to be completed, this will be incorporated into the assessments



undertaken within the Environmental Statement (ES).

- 7.3.8 Additional areas of land recently added to the north east of the Site to allow for some of the Associated Development and therefore remain to be surveyed during 2025. Accordingly, considerations in regard to habitats in particular will be updated to include consideration of these areas following completion of further surveys.
- 7.3.9 Attention was paid to the presence of any invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) (**Volume III, Appendix 7.2**). However, the detectability of such species varies due to a number of factors, e.g. time of year, Site management, etc., and hence the absence of invasive species should not be assumed even if no such species were detected during the Phase 1 Survey. Nonetheless, the level of survey information undertaken is considered to provide a robust basis, whilst where uncertainty remains a precautionary approach to risk of effects is incorporated to the assessments.
- 7.3.10 A recognised limitation of bat activity surveys is that bat detectors can only provide an index of activity rather than determine absolute numbers of bats. The results of bat activity surveys should therefore only be considered indicative of the amount of use bats make of an area rather than a measure of the abundance of bats. In addition, some bat species that are more difficult to detect because of their quiet echolocation calls, such as Brown Long-eared Bat, may be under-recorded. These limitations have been taken into account within the evaluation and assessment of the survey results.

## 7.4 Baseline Conditions

### Survey Work

- 7.4.1 To inform the assessment of ecological impacts associated with the Scheme, and confirm the existing baseline conditions, ecological survey work has been undertaken during 2024 and remains ongoing during 2025, to establish the baseline conditions present. The methodology utilised for the survey work can be split into three main areas: desktop study, habitat survey, and faunal surveys.
- 7.4.2 Further details on survey methodologies are provided in the Baseline Ecological Appraisal (**Volume III, Appendix 7.2**), while a summary of the survey methodology along with the key ecological features that are considered within this preliminary assessment is set out below.

### Survey Methodology

- 7.4.3 In order to compile background information on the Site and its immediate surroundings, desktop information has been obtained and reviewed, including information and records from Norfolk Biodiversity Information Service (NBIS), the online Multi-Agency Geographic Information for the Countryside (MAGIC) database, the Woodland Trust database and other available information sources. In particular, the presence of non-statutory ecological designations and records of protected and notable species within 2km of the Site have been obtained in line with best practice [Ref 7-2]. A 2km search radius is deemed an appropriate Study Area to identify non-statutory designated sites and existing records of protected and priority species [Ref 7-3].
- 7.4.4 Ecological survey work has been undertaken at the Site during 2024, full details of which are set out within the accompanying Baseline Ecological Appraisal (**Volume III, Appendix 7.2**), whilst a number of further surveys are ongoing and programmed during 2025 in order to fully



inform the Environmental Impact Assessment (EIA) process and ensure that the information prepared remains appropriately up to date and accurate to inform the submission. Survey work completed to the date of writing this PEIR includes extended Phase 1 [Ref 7-4]/UK Habitats 2.0 [Ref 7-5] habitat and general faunal survey work undertaken in April and August 2024; Bat survey work undertaken during April to October 2024; Badger survey in April 2024; Breeding Bird surveys in April to July 2024; and Great Crested Newt surveys in June 2024. In addition, Wintering Bird surveys have been complete (October 2024 to March 2025), albeit with analysis and consideration underway, the final results of which will be incorporated once complete in order to fully inform the ES.

7.4.5 Where available, the survey results have been used to inform the initial consideration of constraints and design in relation to the Scheme, along with initial consideration of likely significant effects and potential mitigation and enhancement measures to be incorporated. Where survey information remains to be completed, or further information to be obtained during 2025, reasonable assumptions have been made at this stage based on reasonable worst-case assumptions using professional judgement in order to inform the current progress, with ongoing survey results and associated information to be incorporated once these become available in order to inform the EIA process. Further outstanding information will be presented and assessed at the ES stage.

### Ecological Designations

7.4.6 The Site does not contain, nor is it located immediately adjacent to any statutory ecological designations, the closest of which is the River Nar Site of Special Scientific Interest (SSSI), which is located approximately 0.5km north of the Site.

7.4.7 The Study Area for statutory ecological designations of international importance encompasses those statutory designations within a 25km search radius of the Site, whereas the Study Area for statutory designations of national importance encompasses those within a 5km search radius of the Site. Statutory ecological designations (including those of an international and national level importance), identified within the Study Areas with their respective orientation and distance from the Site are summarised in Table 7.7, below, and shown at **Volume II, Figure 7.1**. Table 7.7 also includes a brief account of qualifying features.

**Table 7.7 Statutory Ecological Designations identified within the Study Area**

Designation Name	Nearest Orientation	Distance and	Qualifying Feature / Reasons for Notification
River Nar SSSI	0.5km north		Habitat (Chalk River) and associated wetland assemblage; including of relevance Lapwing <i>Vanellus vanellus</i> .
Castle Acre Common SSSI	1.0km north		Habitat (Unimproved Grassland) and associated wetland assemblage; including of relevance Lapwing.



Designation Name	Nearest Orientation	Distance and	Qualifying Feature / Reasons for Notification
Breckland SPA	2.7km south west		Qualifying species in relation to Breckland SPA include breeding populations of Stone Curlew <i>Burhinus oedicanus</i> , Nightjar <i>Caprimulgus europaeus</i> , and Woodlark <i>Lullula arborea</i> .
Breckland Forest SSSI	2.7km south west		Nightjar and Woodlark.
Narborough Railway Embankment SSSI	2.8km south		Habitat (Calcareous Grassland), including associated floral and invertebrate assemblage
Norfolk Valley Fens SAC	3.5km north west		Habitats
East Walton and Adcock's Common SSSI	3.7km north west		Habitats and Fauna (Invertebrates only)
Breckland SAC	8.5km south		Habitats and Great Crested Newt (GCN) <i>Triturus cristatus</i> .
Roydon Common Ramsar	12.4km north west		Habitats and Fauna (Invertebrates only)
Roydon Common & Dersingham Bog SAC	12.4km north west		Habitats
Dersingham Bog Ramsar	18.5km north west		Habitats and Fauna (Invertebrates only)
River Wensum SAC	12.8km north east		Habitats and Fauna (Invertebrates only)
The Wash SPA	21.7km north west		Wintering Waterfowl
The Wash & North Norfolk Coast SAC	21.7km north west		Habitats and Fauna (Harbour Seal <i>Phoca vitulina</i> and Otter <i>Lutra lutra</i> ).



- 7.4.8 The Study Area for non-statutory ecological designations encompasses those non-statutory designations located within a 2km search radius around the Site. The non-statutory ecological designations are identified in Table 7.8 (along with their respective distance and orientation from the Site), and shown at **Volume II, Figure 7.1**.
- 7.4.9 The Site itself does not contain any non-statutory ecological designations, however a single Roadside Nature Reserve (RNR, ref U33086) is located along River Road adjacent to the Site along River Road (as shown at **Volume II, Figure 7.1**). A further RNR is located offsite along River Road, approximately 0.05km north of the Site boundary, whilst all other identified ecological designations are situated over 0.5km from the Site boundary.

**Table 7.8 Non-Statutory Ecological Designations identified within the Study Area**

Non-Statutory Designation	Nearest Distance and Orientation
River Road U33086 RNR	Adjacent to the Site boundary (situated along River Road within the offsite highway verge located between individual parcels within the Site boundary).
River Road U22086 RNR	0.05km north
Land Adjacent to the River Nar CWS ref. 985	0.6km north
Priory Meadow CWS	1km north
Lake West of Castle Acre CWS	1.1km north
Mill House Lake CWS	1.1km north
Land Adjacent to the River Nar CWS ref. 902	1.2km north
Land Adjacent to the River Nar CWS ref. 945	1.1km north
Priory Road U22074 RNR	1.3km north
Mill House CWS	1.3km north
Narford Lake CWS	1.5km north west
The Carr CWS	1.5km north west
Castle Acre Castle CWS	1.6km north east



Non-Statutory Designation	Nearest Distance and Orientation
Lynn Road Disused Railway CWS	1.6km south
Walton Road C65 RNR	1.8km north

## Habitats

7.4.10 The Site is dominated by large, intensively managed arable fields, with areas under rotation for pig grazing. Field boundary features include hedgerows, tree lines and scattered trees along with a number of additional habitats, comprising the following:

- Arable
- Improved and Semi-improved Grassland
- Hedgerows
- Treelines
- Trees (including veteran trees)
- Dense and Scattered Scrub
- Dry Ditch
- Woodlands; and
- Ponds.

7.4.11 A full description of the individual habitats and ecological features within the Site is set out within the Baseline Ecological Survey Report (**Volume III, Appendix 7.2**), whilst the location and extent of individual habitats and features are shown at **Volume II, Figure 7.2**.

7.4.12 A summary of the habitats considered to be of ecological importance occurring within and adjacent to the Site (i.e. within the primary zone of influence) is set out in Table 7.9.

**Table 7.9 Summary and Evaluation of Important Ecological Habitats and Features Present Within and Adjacent to the Study Area**

Habitat Type	Brief Description	Level of Importance
Trees (including Veteran Trees)	Considerable numbers of mature trees situated within tree lines and hedgerows, including veteran trees (Veteran trees represent irreplaceable habitat)	Local
Woodland	Blocks of woodland including coniferous plantation, broad-leaved woodland and mixed woodland present in varying condition.	Site



Habitat Type	Brief Description	Level of Importance
Ponds	Ten ponds present within the Site boundary and immediately adjacent/enclosed areas the majority of which were recorded to be in relatively poor condition, predominantly linked with game management.	Site
Hedgerows	The majority of field boundaries are marked by hedgerows, forming vegetated corridors (albeit the majority of these are species-poor). Nonetheless, all hedgerows are likely to qualify as a Priority Habitat based on the standard definition.	Site

7.4.13 Other habitats present within the Site include arable, improved and semi-improved grassland, scrub, ditches, hardstanding and bare ground. Such habitats are evaluated within the Baseline Ecological Survey Report (**Volume III, Appendix 7.2**) and are not considered to form habitats of ecological importance.

### Faunal Species

7.4.14 As set out above, specific faunal survey work has been undertaken at the Site during 2024 in regard to bats, badger, breeding birds and Great Crested Newt, with wintering bird survey work in progress at the time of writing, the results of which will be incorporated into this assessment once complete). In addition, general observations were made of any faunal use of the Site with particular attention paid to the potential presence of protected or notable species.

7.4.15 Further details of this survey work are included in the Baseline Ecological Survey Report (**Volume III, Appendix 7.2**). A summary of faunal species considered to be of ecological importance at the Site and its immediate surroundings (i.e. the primary zone of influence) is set out in Table 7.10 below.

**Table 7.10 Summary of Faunal Species of Potential Ecological Importance**

Species Group	Brief description of usage	Level of Importance
Bats (roosting)	A small number of buildings and suitable structures are present within and immediately adjacent to the Site itself. This includes buildings suitable for roosting bats (with roosting activity confirmed for a single building adjacent to the Site). In addition, a substantial number of mature trees are present across the Site (located within field boundary vegetation) which provide	Local



Species Group	Brief description of usage	Level of Importance
	suitable features for use by roosting bats.	
Bats (foraging/commuting)	Bat activity survey work has been undertaken at the Site across the 2024 seasonal period. The vast majority of bat activity recorded across the Site was composed of Common Pipistrelle and Soprano Pipistrelle, albeit other bat species were recorded at the Site, including in particular numbers of Barbastelle registrations.	Site - Regional
Badger	Specific badger survey work was undertaken at the Site, during 2024, which identified a small number of badger setts, in particular within the south west of the Site, albeit evidence of badger activity was recorded to be lacking across substantial areas of the Site.	Site
Birds	<p>Fourteen Priority bird species were confirmed to be breeding within the Site (including four Red List species), with a further 10 probably breeding and 6 possibly breeding based on the specific breeding bird survey work undertaken in 2024. Many of the breeding territories are associated with the mature boundary hedgerows and trees, and associated with the field margins, albeit 121 Skylark territories were recorded within the arable fields, whilst livestock units were recorded to be used by a number of bird species including two probable breeding pairs of Curlew.</p> <p>Wintering bird surveys are currently underway at the time of writing and remain to be completed, the results of which will be incorporated within the subsequent ES once available.</p>	Local-Regional
Other Mammals	Other notable/priority mammal species including Brown Hare and Hedgehog are likely to make use of suitable habitats within the Site.	Site



Species Group	Brief description of usage	Level of Importance
Reptiles	The majority of the internal field areas are largely unsuitable for reptiles due to intensive arable production. The field boundary vegetation, including grassland margins, hedgerow bases and ponds provide potentially suitable habitats for reptiles, albeit no background records for reptiles from the last 20 years were returned from NBIS.	Site (if present)
Amphibians (Great Crested Newt)	A number of ponds are present within the Site and surrounding areas, including apparently suitable breeding opportunities for Great Crested Newt. Specific eDNA survey work was undertaken of all suitable ponds within 250m of the Site during June 2024, which recorded negative results (indicating GCN likely to be absent). The Scoping Opinion received from PINs suggests further consideration should be given to ponds within 500m of the Site in the absence of clear agreement with relevant statutory bodies. Consultation with Natural England is currently in progress through the Discretionary Advice Service (DAS), during which confirmation will be sought in regard to the adequacy of the survey information in regard to Great Crested Newt and the need or otherwise for further survey information in regard to ponds located between 250m and 500m of the Site.	Likely absent (N/A)

## 7.5 Embedded Mitigation

- 7.5.1 The Scheme has been designed to incorporate the retention of valuable habitats and ecological features, including those identified to be of importance for protected species. This will be achieved by implementing appropriate development buffers, which are to remain in-situ, and undeveloped for the lifetime of the Scheme, including throughout the Construction and Operational Phases, and will be retained during the Decommissioning Phase.
- 7.5.2 The development buffers will be secured with fencing at the outer extents of the buffers to separate the Solar PV Site, with individual panels sited no closer than 4m to the secure fencing.
- 7.5.3 The development buffers have been selected based on the relative importance and ecological



sensitivity of the receptors identified, as set out below in Table 7.10.

**Table 7.10 Summary of receptor development exclusion buffers**

Receptor Development Exclusion Buffer	Buffer Size	Rationale
Hedgerows	8m	To provide sufficient root protection area, and opportunities for enhancement / habitat creation
Hedgerows with Trees	10m	
Tree Lines	10m	
Individual Trees and Tree Groups (Including those with potential bat roosting features)	10m (unless otherwise specified by an Arboricultural Consultant)	
Veteran and/or Ancient Trees	15x width of stem diameter at breast height [Ref 7-6].	
Woodland	15m	
Ditches	6m	To fully retain ditches within permanently vegetated strips, and maximise ecological benefits, including mitigating for pollution events.
Ponds (eDNA Negative for Great Crested Newt)	10m	To fully retain ponds within permanently vegetated strips, and maximise ecological benefits, including mitigating for pollution events.
Schedule 1 Bird Nests	Case by case	To safeguard protected species and account for specific species requirements.
Bat Roosts	Case by case	To safeguard protected species and account for specific species requirements.
Badger Setts	30m	To safeguard protected species in accordance with standing advice [Ref 7-7].



Receptor Development Exclusion Buffer	Buffer Size	Rationale
Non-statutory Sites (including the River Road RNR ref. U33086)	10m	To retain and protect Dropwort, the notification for this designation.

7.5.4 In addition, the cessation of intensive arable production across the Solar PV Site will result in reduced physical disturbance during the Operational Phase (e.g. through lack of ploughing, seeding and harvesting of crops) and reduction in application of pesticides (including insecticides and herbicides) along with reduced nutrient input due to removal of fertiliser input which will benefit ecological receptors and would likely result in increased ecological diversity and reduced pollution and leaching to offsite areas.

7.5.5 Other embedded mitigation which will further limit Scheme effects on ecological receptors during the Construction and Operations Phases include:

- Designated site access and transit routes have been identified (**Volume I, Chapter 9: Transport and Access**), which will follow existing field accesses, gaps in hedgerows, and trackways, including avoidance of the development buffers (where feasible to do so); and
- Routing of construction traffic, which will avoid sensitive areas including designated sites (**Volume I, Chapter 9: Transport and Access**).

7.5.6 In order to further address and mitigate potential adverse effects in regard to individual ecological receptors, the following mitigation measures are proposed to be implemented as part of the Scheme. Given these are firm commitments, which will therefore represent requirements under any Development Consent Order (DCO), they are included as embedded mitigation.

## Designations

### Pollution Prevention

#### Construction and Decommissioning Phases

7.5.7 Specific pollution prevention measures will be incorporated into the Construction and Decommissioning Phases.

7.5.8 Those details relating to the Construction Phase and Decommissioning Phase will be contained within an outline Construction Environmental Management Plan (oCEMP) and (outline Decommissioning Environmental Management Plan) oDEMP which will be secured in the DCO. In particular, specific measures and approaches in the oCEMP and oDEMP will be incorporated in order to prevent any potential run-off or pollutants leaving the Site, including along hydrological pathways that could otherwise reach the River Narr SSSI designation (including interfacing CWSs detailed above) and direct pathways (hydrological and dust) to non-statutory designations including River Road RNRs. Pollution prevention measures will be focussed on the interception of contaminants at source in line with standard construction and decommissioning processes. Initial approach and strategic measures will be detailed within the oCEMP and oDEMP submitted to accompany the DCO Application, including timescales for provision of further details and timescales for implementation set out in order to provide



confidence in the proposed approach.

## Habitats

### Construction and Decommissioning Phases

- 7.5.9 As set out above, the retention of key ecological habitats (woodlands, hedgerows, ponds and trees) along with appropriate buffers is included as embedded within the Scheme. However, in order to ensure protection of these features, measures such as the use of temporary construction/protection fencing and working safeguards will be incorporated at the Construction and Decommissioning Phases of the Scheme, which will be set out within the oCEMP and oDEMP, covering the protection of woodland at boundaries, working in extremely dry or wet weather, storage and use of fuels and chemicals, and the movement of vehicles and plant, will be secured as part of the DCO Application through the oCEMP and oDEMP, and will reduce the likelihood of these impacts occurring. The buffer distances would be observed thereafter for the lifetime of the Scheme submitted to accompany the ES, including timescales for provision of further details and timescales for implementation set out in order to provide confidence in the proposed approach.
- 7.5.10 As veteran trees are considered irreplaceable habitats, the retention of these trees has been designed into the Scheme, and these features will be protected throughout the lifetime of the Scheme.
- 7.5.11 In addition, additional measures will be implemented to prevent the spread of exotic invasive species (including Variegated Yellow Archangel and Three-cornered Garlic which have been recorded within the Study Area) will be detailed within the outline Landscape Environmental Management Plan (oLEMP) oCEMP and oDEMP to be secured in the DCO, ultimately further provisioned in the supporting LEMP, CEMP and DEMP documents.
- 7.5.12 New habitats will be provided as part of the Scheme with aims to improve biodiversity gains, where this does not conflict with construction, operation and decommissioning function of the Scheme. Examples of habitat creation and enhancement measures to be implemented as part of the Scheme include:
- Creation of new grassland habitats including wildflower grassland
  - The gapping up of hedgerows and treelines with additional native species
  - Implementation of a rotational management strategy for hedgerows; and
  - The selective thinning and management of vegetation associated with ponds and ditches.
- 7.5.13 The final proposed Scheme will be assessed using the Statutory Biodiversity Metric, including in line with any relevant legislative requirements associated with DCO development at the time of submission of the ES, in order to ensure that the proposed Scheme results in an overall increase in biodiversity value in line with standard guidelines. Given the nature of the habitats and enhancement measures proposed, it is currently anticipated that the resultant Biodiversity Net Gain (BNG) assessment will demonstrate net gain in habitat and hedgerow units substantially in excess of 10%, albeit this would be confirmed at the ES stage.
- 7.5.14 A full BNG Assessment will be conducted and submitted with the ES, taking account of all habitat trading rules and the latest Statutory Metric requirements.
- 7.5.15 Ongoing management of habitats will be undertaken in order to maximise value for biodiversity throughout the Operational Phase of the Scheme, including in particular field boundary



vegetation (hedgerows and trees) along with grassland areas. Proposed management strategies will be set out within the oLEMP submitted to accompany the ES, including timescales for provision of further details and timescales for implementation set out.

## **Fauna**

### **Bats**

#### Construction and Decommissioning.

- 7.5.16 Disturbance effects are anticipated to be largely avoided through the adherence to day-light working hours during construction activities where practicable, as well as the implementation of a sensitive lighting strategy to avoid temporary disturbance to bat flight lines and foraging areas. Further details will be confirmed within the oCEMP and oDEMP to be submitted with the ES in order to ensure that potential effects on light-sensitive species such as bats are fully mitigated.

#### Operation

- 7.5.17 No new lighting is proposed within the Solar PV Site areas at the Site and accordingly, no further mitigation is required in regard to lighting across the majority of the Site, which is proposed for Solar and associated habitat areas. New lighting will be limited to locations essential to security, included at the Customer and National Grid Substations, Battery Energy Storage Systems (BESS), and grid connections. The detailed siting and design of the BESS, Customer and National Grid Substations, and grid connections are yet to be confirmed, albeit are anticipated under current design principles to be located away from sensitive receptors. In any event, the development of a sensitive lighting strategy will include detailed measures to avoid light spill wherever possible, including in particular to prevent light spill into buffers and retained vegetation.

#### Enhancement.

- 7.5.18 The Scheme will strengthen existing key movement corridors through the planting up of gaps along existing hedgerows and treelines, as well as through the creation of new hedgerow and treelines to improve connectivity throughout the Scheme. The creation of diverse habitats including new grassland habitats which will improve potential foraging opportunities for this group during the Operational Phase of the Scheme.

### **Badger**

#### *Construction and Decommissioning*

- 7.5.19 General construction safeguards in order to prevent accidental killing and injury of mammals including Badger will be implemented during the Construction and Decommissioning Phases of the Scheme, including as referred within the oCEMP and oDEMP submitted to accompany the ES stage.

#### *Operation*

- 7.5.20 The detailed fencing strategy for the Site will be sensitively designed to allow permeability across the Site by Badger, such that freedom of movement will remain, and connectivity to foraging resources within the wider landscape will remain while created habitats develop. Where appropriate, Badger security fencing will incorporate specific design measures such as



gaps, gates or other features, (particularly associated with existing vegetated corridors and key commuting routes) in order to ensure continued permeability and access to foraging areas across the Site for Badger.

### **Other Mammals – Brown Hare and Hedgehog**

#### Construction and Decommissioning

- 7.5.21 Measures including those set out at 7.5.25. and 7.2.26, below will prevent accidental killing and injury of mammals will be implemented during the included during the Construction and Decommissioning Phases of the Scheme. Such measures will be further detailed and referred within the oCEMP and oDEMP.

### **Birds**

#### Construction, Operation, and Decommissioning.

- 7.5.22 Mitigation and compensation measures in respect of Skylark and Curlew will be proposed, including provision of new open grassland areas, along with long term provision of Skylark plots within arable land outside of the proposed Solar PV Site. Precise details are currently in discussion with the landowner and will be confirmed and set out within the ES. Details of creation and management of specific grassland areas for ground nesting birds will be identified within the oLEMP and ES.
- 7.5.23 To avoid an offence under the Wildlife and Countryside Act 1981 (as amended), the potential loss of active nests during construction will be avoided by either undertaking clearance of potential bird nesting habitat outside of the bird nesting season (March to August inclusive) or, if necessary, preceding any clearance with an inspection by a suitably qualified ecologist. Any nests identified will be cordoned off and protected until they cease to be active. Where necessary, the use of bird scarers or other deterrence methods will be used to minimise the risk of ground nesting birds occupying open ground once construction works have commenced.

#### Enhancement.

- 7.5.24 The Scheme will provide additional foraging and nesting opportunities for a range of bird species, including the majority of those recorded within the Study Area during the survey work undertaken, through the delivery of new habitats and native planting. Additional enhancements proposed will include the provision of bird boxes attached to suitable trees within the Site, precise details of which would be confirmed at a later stage of Scheme design.

### **General Construction and Decommissioning Safeguards**

- 7.5.25 In order to avoid potentially significant effects on receptors during the Construction and Decommissioning Phase as a result of anticipated damage from construction vehicles, dust deposition and surface run-off of contaminants or silt, it is proposed that standard additional mitigation measures are put in place during the Construction and Decommissioning Phase, to include the following:
- Prior to works commencing, a full site investigation will be undertaken to identify any potential sources of contamination and advise on appropriate safeguards to be implemented during construction works



- Erection of tree protection fencing around retained woody vegetation, hedgerows and trees in accordance with BS5837:2012
- Erection of temporary fencing around construction areas, protecting retained habitats of ecological value
- Damping down of potential sources of dust
- Fires will only be lit in secure compounds and not allowed to remain lit during the night; and
- Implementation of engineering safeguards as part of construction works to control surface water run-off and avoid contamination of receptors. This could include measures such as the use of a temporary silt traps in order to form an intercept for silt and other potential pollutants.

7.5.26 Furthermore, a number of general additional safeguarding measures will be set out in relation to faunal species, including:

- All contractors will be briefed as to the possible presence of protected and notable faunal species within the Site, with particular reference to the implications of legislation and licensing
- Any trenches or deep pits within the Site that are to be left open overnight will be provided with a means of escape should a Badger or other mammal enter. This could simply be in the form of a roughened plank of wood placed in the trench as a ramp to the surface. This is particularly important if the trench fills with water
- Any trenches/pits will be inspected each morning to ensure no animals have become trapped overnight
- The storage of topsoil or other 'soft' building materials in the Site will be given careful consideration. Badgers will readily adopt such mounds as setts. So as to avoid the adoption of any mounds, these will be kept to a minimum and will be subject to inspections by site contractors with consideration given to temporarily fencing any such mounds to exclude Badgers
- Food and litter will not to be left within the working area overnight
- Storage of chemicals and hazardous materials in line with best practice guidelines, ensuring that they are secure, well away from the Site boundaries and cannot be accessed or knocked over by roaming animals
- To minimise adverse effects as a result of lighting during the Construction Phase, temporary lighting will be minimised, wherever practical. Where required for health and safety, security or other reasons, it will be positioned so as to minimise light spill on to hedgerows and other boundary features; and
- Disturbance from noise will be minimised by the adoption of good working practice.

7.5.27 It is proposed that the measures referred to above, along with any further relevant measures



or operations will be set out within the oCEMP and oDEMP to accompany the ES stage.

## 7.6 Assessment of Likely Significant Effects

- 7.6.1 This section identifies and characterises the preliminary likely significant effects arising during the Construction, Operation and Decommissioning Phases of the Scheme on the identified ecological receptors, as informed by the baseline information available, as well as the current stage of Scheme's design (see Concept Masterplan at **Volume III, Appendix 2.1**). When characterising impacts, embedded mitigation measures which form part of the Scheme's design and avoid or mitigate for potential impacts are taken into account and any significance of effect is described.
- 7.6.2 Decommissioning activities are anticipated to generate effects of a similar or lesser Extent, Magnitude, Duration, Reversibility, Timing, and Frequency compared to the Construction Phase and therefore the Construction Phase represents a worse case scenario at this preliminary stage of assessment for submission of the PEIR.

### International Statutory Ecological Designations within 25km

#### Construction, Operational and Decommissioning Effects

##### Construction Phase Impacts on Breckland SPA

###### *Direct Effects*

- 7.6.3 Breckland SPA is a receptor of **international significance** (sensitivity) sited outside of the Site boundary, located approximately 2.7km southwest of the Scheme. Accordingly, the designation is located over 2.5km from the Site such that no direct effects are anticipated, and the resulting magnitude of impacts is considered to be **negligible** and therefore **not significant**. Accordingly, **no significant adverse effects** on Breckland SPA in relation to direct pathways are anticipated as a result of the Construction Phase of the Scheme.

###### *Functionally Linked Land*

- 7.6.4 Potential for land sited outside of the SPA designation itself to represent functionally linked land and provide supporting habitat of importance to qualifying species (Stone Curlew, Nightjar and Woodlark) is of relevance in relation to the potential for likely significant effects as a result of the Scheme. Nightjar and Stone Curlew are summer visitors to the UK, wintering in northern Europe and Africa, and accordingly, clearly do not make use of the Site in winter. Woodlark remains resident in the UK throughout the year. However, none of these qualifying species were recorded during any of the specific breeding bird surveys conducted across the Study Area in 2024 and therefore the Site does not appear to represent functionally linked land used by qualifying species. Accordingly, **no significant adverse effects** on Breckland SPA in relation to functionally linked land are anticipated as a result of the Construction Phase of the Scheme.

###### *Indirect Effects - Air Quality*

- 7.6.5 Air quality effects arising from activities during the Construction Phase will be temporary in nature, and associated with the vehicle movements from the transit of materials and general on-site construction activities. The Air Pollution Information System (APIS) database [Ref 7-8] suggests that Woodlark, Nightjar and Stone Curlew are sensitive to nutrient impacts in the



form of nitrogen deposition, which would therefore represent potential to affect the SPA given these species form the relevant qualifying features on which the designation is based. Design mitigation measures to minimise the likelihood and severity of potential air quality effects on Breckland SPA have been embedded into the Scheme design. This includes the identification of designated construction and material transit routes as part of the routing strategy. In particular, access into the Site will be via the A1065, with vehicle movements directed along the A1065 and onwards via the A47 dual carriageway, therefore avoiding Breckland SPA.

7.6.6 Construction Phase Heavy Goods Vehicular (HGV) movements shall be directed by a routing strategy, with an initial feasibility exercise indicating the following three key routes to the Site via local and strategic road networks:

- Route A: Access to/from the south from the A47, via the A1065
- Route B: Access to/from the north via A1065; and
- Route C: Access to/from the A47, from the west via Narford Road, Low Road, South Acre Road and A1065.

7.6.7 Breckland SPA is a receptor of **international significance** (sensitivity); however, none of the above routes pass through or immediately adjacent to the Breckland SPA. Accordingly, subject to the above embedded design mitigation considerations, it is considered the magnitude of impact on Breckland SPA is **Negligible**, which is **not significant**. Therefore, **no significant adverse effects** on Breckland SPA in relation to air quality impacts are anticipated as a result of the Construction Phase of the Scheme.

#### Operational Phase Impacts on Breckland SPA

7.6.8 Breckland SPA is a receptor of **international significance** (sensitivity) sited outside of the Site boundary, located approximately 2.7km south west of the Scheme. Accordingly, the designation is located outside of, and over 2.5km from the Site. Operational activities would include routine servicing, maintenance activities, and replacement of equipment such as PV panels and BESS as required as well as management of vegetation, with in particular traffic movements infrequent and no on-site staff required on day-to-day basis (**Volume I, Chapter 5: Scheme Description**). As such, **no direct effects are anticipated** as a result of operational activities and the resulting magnitude of impacts is considered to be **negligible**, which is **not significant**. Accordingly, **no significant adverse effects** on Breckland SPA are anticipated as a result of the Operational Phase of the Scheme.

#### Decommissioning Phase Impacts on Breckland SPA

##### *Direct Effects*

7.6.9 Breckland SPA is a receptor of **international significance** (sensitivity) sited outside of the Site boundary, located approximately 2.7km south west of the Scheme. Accordingly, the designation is located outside of, and over 2.5km from the Site such that **no direct effects are anticipated**, and the resulting magnitude of impacts is considered to be **negligible**, which is **not significant**. Accordingly, **no significant adverse effects** on Breckland SPA in relation to direct pathways are anticipated as a result of the Decommissioning Phase of the Scheme.

##### *Indirect Effects - Air Quality*

7.6.10 Air quality effects arising from activities during the Decommissioning Phase will be temporary in nature and associated with the vehicle movements from the transit of materials and on-site



construction related activities. The Air Pollution Information System (APIS) database [Ref 7-8] suggests that Woodlark, Nightjar and Stone Curlew are sensitive to nutrient nitrogen impacts. Embedded mitigation measures to minimise the likelihood and severity of potential air quality effects on Breckland SPA have been embedded into the Scheme from an early stage. This includes designated decommissioning and material transit routes being identified as part of the routing strategy, as part of which, access into the Site will be via the A1065, with vehicle movements directed along the A1065 and onwards via the A47 dual carriageway, therefore avoiding Breckland SPA.

7.6.11 As set out in **Volume I, Chapter 9: Transport and Access**, (see sub-section 9.4) of this PEIR, it is assumed that traffic movement during the Decommissioning Phase would be equivalent to or less than peak traffic flows during the Construction Phase. Decommissioning Phase HGV movements shall be directed by a routing strategy, with an initial feasibility exercise indicating the following three key routes to the Site via local and strategic road networks:

- Route A: Access to/from the south from the A47, via the A1065
- Route B: Access to/from the north via A1065; and
- Route C: Access to/from the A47, from the west via Narford Road, Low Road, South Acre Road and A1065.

7.6.12 Breckland SPA is a receptor of **international significance** (sensitivity), however none of the above routes pass through or immediately adjacent to the Breckland SPA. Accordingly, subject to above design mitigation considerations, it is considered the magnitude of impact on Breckland SPA is **negligible**, which is **not significant**. Therefore, **no significant adverse effects** on Breckland SPA in relation to air quality impacts are anticipated as a result of the Decommissioning Phase of the Scheme.

#### Construction Phase Impacts on Norfolk Valley Fens SAC

##### *Direct Effects*

7.6.13 Norfolk Valley Fens SAC is a receptor of **international significance** (sensitivity) sited outside of the Site boundary, located approximately 3.5km north west of the Site at its nearest point, and accordingly is physically removed and separated from the Scheme, such that no direct effects are anticipated, and the resulting magnitude of impacts is **negligible**, which is considered **not significant**. Accordingly, **no significant adverse effects** on Norfolk Valley Fens SAC in relation to direct pathways are anticipated as a result of the Construction Phase of the Scheme.

##### *Indirect Effects*

7.6.14 Similarly, given the degree of separation (3.5km) between Norfolk Valley Fens SAC and the Site, indirect effects such as disturbance via lighting and noise, or functionality linked land effects arising from air quality and dust settlement are not anticipated, and the resulting magnitude of impacts is considered to be **negligible**, which is **not significant**. Accordingly, **no significant adverse effects** on Norfolk Valley Fens SAC are anticipated as a result of the Construction Phase of the Scheme.

#### Operational Phase Impacts on Norfolk Valley Fens SAC

7.6.15 Norfolk Valley Fens SAC is a receptor of **international significance** (sensitivity) sited approximately 3.5km north west of the Site boundary. Operational activities would include



routine servicing, maintenance activities, and replacement of equipment such as PV panels and BESS as required as well as management of vegetation, with in particular traffic movements infrequent and no on-site staff required on day-to-day basis (**Volume I, Chapter 5: Scheme Description**). As such, **no direct effects are anticipated** as a result of operational activities and the resulting magnitude of impacts is considered to be **negligible**, which is **not significant**. Accordingly, **no significant adverse effects** on Breckland SPA are anticipated as a result of the Operational Phase of the Scheme.

#### Decommissioning Phase Impacts on Norfolk Valley SAC

##### *Direct Effects*

- 7.6.16 Norfolk Valley Fens SAC is a receptor of international significance (sensitivity) sited outside of the Site boundary, located approximately 3.5km north west of the Site at its nearest point, and accordingly is physically removed and separated from the Scheme, such that no direct effects are anticipated, and the resulting magnitude of impacts is considered to be **negligible**, which is **not significant**. Accordingly, **no significant adverse effects** on Norfolk Valley Fens SAC in relation to direct pathways are anticipated as a result of the Decommissioning Phase of the Scheme.

##### *Indirect Effects*

- 7.6.17 Similarly, given the degree of separation (3.5km) between Norfolk Valley Fens SAC and the Scheme, **indirect effects** such as disturbance via lighting and noise, or functionality linked land effects arising from air quality and dust settlement **are not anticipated**, and the resulting magnitude of impacts is **negligible**, which is considered **not significant**. Accordingly, **no significant adverse effects** on Norfolk Valley Fens SAC in relation to indirect pathways are anticipated as a result of the Decommissioning Phase of the Scheme.

#### Construction Phase Impacts on Breckland SAC

##### *Direct Effects*

- 7.6.18 Breckland SAC is a receptor of **international significance** (sensitivity), located approximately 8.5km south of the Scheme at its nearest point, and notified on the basis of the habitats and species it supports, including terrestrial and wetland habitats, and Great Crested Newt respectively. Breckland SAC is physically well removed from the Scheme, such that **no direct effects** are anticipated, and the resulting magnitude of impacts is **negligible**, which is considered **not significant**. Accordingly, **no significant adverse effects** on Breckland SAC in relation to direct pathways are anticipated as a result of the Construction Phase of the Scheme.

##### *Indirect Effects*

- 7.6.19 Similarly, given the degree of separation (8.5km) between Breckland SAC and the Scheme, **indirect effects** such as disturbance via lighting and noise, or functionality linked land effects arising from air quality and dust settlement are **not anticipated**, and the resulting magnitude of impacts is negligible, which is considered **not significant**. Accordingly, **no significant adverse effects** on Breckland SAC in relation to indirect pathways are anticipated as a result



of the Construction Phase of the Scheme.

#### Operational Phase Impacts on Breckland SAC

- 7.6.20 Breckland SAC is a receptor of **international significance** (sensitivity) sited approximately 8.5km south of the Site boundary. Operational activities would include routine servicing, maintenance activities, and replacement of equipment such as PV panels and BESS as required as well as management of vegetation, with in particular traffic movements infrequent and no on-site staff required on day-to-day basis (**Volume I, Chapter 5: Scheme Description**). As such, **no direct effects are anticipated** as a result of operational activities and the resulting magnitude of impacts is considered to be **negligible**, which is **not significant**. Accordingly, **no significant adverse effects** on Breckland SPA are anticipated as a result of the Operational Phase of the Scheme.

#### Decommissioning Phase Impacts on Breckland SAC

##### *Direct Effects*

- 7.6.21 Breckland SAC is a receptor of **international significance** (sensitivity), located approximately 8.5km south of the Scheme at its nearest point, and notified on the basis of the habitats and species it supports, including terrestrial and wetland habitats, and Great Crested Newt respectively. Breckland SAC is physically well removed from the Scheme, such that **no direct effects** are anticipated, and the resulting magnitude of impacts is negligible, which is considered **not significant**. Accordingly, **no significant adverse effects** on Breckland SAC in relation to direct pathways are anticipated as a result of the Decommissioning Phase of the Scheme.

##### *Indirect Effects*

- 7.6.22 Similarly, given the degree of separation (8.5km) between Breckland SAC and the Scheme, indirect effects such as disturbance via lighting and noise, or functionality linked land effects arising from air quality and dust settlement are not anticipated, and the resulting magnitude of impacts is **negligible**, which is considered **not significant**. Accordingly, **no significant adverse effects** on Breckland SAC are anticipated in relation to indirect pathways as a result of the Decommissioning Phase of the Scheme.

### **Other International Ecological Designations within 25km of the Scheme**

#### **Construction, Operational and Decommissioning Effects**

- 7.6.23 Other Statutory Designations of **international significance** (sensitivity) considered in this preliminary assessment, and noted to be present within 25km of the Scheme are as listed below:

- Roydon Common Ramsar
- Roydon Common & Dersingham Bog SAC
- Dersingham Bog Ramsar
- River Wensum SAC
- The Wash SPA & Ramsar; and
- The Wash and North Norfolk Coast SAC.



#### *Direct Effects*

- 7.6.24 The above receptors are all located in excess of approximately 12km from the Scheme, such that no direct effects are anticipated, and the resulting magnitude of impacts is **negligible**, which is **not significant**. Accordingly, **no significant adverse effects** on Roydon Common Ramsar, Roydon Common & Dersingham Bog SAC, Dersingham Bog Ramsar; River Wensum SAC, The Wash SPA & Ramsar, and The Wash and North Norfolk Coast SAC the above receptors in relation to direct pathways are anticipated as a result of the Construction, Operational and Decommissioning Phases of the Scheme.

#### *Indirect Effects*

- 7.6.25 Similarly, given the degree of separation ( $\geq 12$ km between the above receptors of **international significance** (sensitivity) and the Scheme, **indirect effects** such as disturbance via lighting and noise, or functionality linked land effects arising from air quality and dust settlement are **not anticipated**, and the resulting magnitude of impacts is negligible, which is considered **not significant**. Accordingly, **no significant adverse effects** on Roydon Common Ramsar, Roydon Common & Dersingham Bog SAC, Dersingham Bog Ramsar; River Wensum SAC, The Wash SPA & Ramsar, and The Wash and North Norfolk Coast SAC are anticipated in relation to indirect pathways as a result of the Construction, Operational and Decommissioning Phases of the Scheme.

### **National Statutory Ecological Designations within 5km of the Scheme**

#### **Construction, Operational and Decommissioning Effects**

##### Construction Phase Impacts on the River Nar SSSI

#### *Direct Effects*

- 7.6.26 The River Nar SSSI is a receptor of **national significance** (sensitivity), located approximately 0.5km north of the Scheme at its nearest point, and notified on the basis of the habitats and species it supports, including terrestrial and wetland habitats, and Lapwing respectively. The River Nar SSSI is physically removed from the Scheme, such that **no direct effects** are anticipated, and the resulting magnitude of impacts is negligible, which is considered **not significant**. Accordingly, **no significant adverse effects** on the River Nar SSSI in relation to direct pathways are anticipated as a result of the Construction Phase of the Scheme.

#### *Air Quality*

- 7.6.27 The River Nar SSSI has been scoped in for assessment in relation to potential sensitivity for air quality effects during the Construction Phase.
- 7.6.28 As set out in **Volume I, Chapter 9: Transport and Access**, (see sub-section 9.4) of this PEIR, key traffic routes identified as part of the routing strategy for the Construction Phase of the Scheme. Key routes A and C cross the River Nar SSSI at a single point via a road bridge along the A47 approximately at Narborough, whereas key route B crosses the River Nar SSSI at a single point across a road bridge along the A1065 approximately at West Lexham, with traffic routes along Narford Road otherwise falling within approximately 200m of the River Nar SSSI at its closest point.
- 7.6.29 At this stage, background traffic movements associated with the Phases of the Scheme are not anticipated to increase substantially above background rates at river crossings and along



the nearest proposed key routes. For further detail on expected routing and traffic flows reference can be made to **Volume I, Chapter 9: Transport and Access**.

- 7.6.30 Further, it is anticipated that any elevation from background traffic movements during the Construction Phase will be of a short-term nature, with traffic flows distributed according to the routing strategy which details several routing options to be utilised as part of the Scheme.
- 7.6.31 Accordingly, air quality effects arising from dust settlement and vehicle emissions are anticipated to be limited and diffuse, such that under the proposed vehicle routing strategy, air quality effects are not anticipated, and the resulting magnitude of impacts is negligible, which is considered **not significant**.
- 7.6.32 Accordingly, **no significant adverse effects** of the Scheme are anticipated on the River Nar SSSI in terms of air quality throughout the Construction Phase.

#### *Indirect Effects - Hydrological Pathways*

- 7.6.33 As set out within **Volume I, Chapter 12: Water Resources**, the River Nar SSSI is hydrologically linked to the Site via chalk aquifer baseflow and near-surface water supplies which drain into the River Nar SSSI, with the existing main source of leached nitrate within the River Nar SSSI arising from diffuse agricultural pollution. The Study Area itself supports a number of individual ditches, of which all but one was recorded to be dry at the time of initial survey, whilst these do not appear to represent a connected network leading to the River Nar. Further, based on information within **Volume I, Chapter 12: Water Resources**, rainwater is anticipated to infiltrate rapidly rather than generate substantial run-off.
- 7.6.34 In the absence of mitigation, there is potential for chemical spills and contaminated surface water runoff to reach the River Nar SSSI via overland flows such as ditches, which has the potential to degrade the habitats with adverse effects to the associated faunal and botanical assemblages of the River Nar SSSI, albeit given the separation and above considerations any risk would be low. Nonetheless, pollution prevention measures are included within the embedded mitigation, such that **no adverse effects** are anticipated, the resulting magnitude of impacts is **negligible**, which is considered **not significant**. Accordingly, **no significant adverse effects** on the River Nar SSSI are anticipated through contamination and/or run-off as a result of Construction Phase activities.
- 7.6.35 The cessation of intensive arable farming across the Site will likely reduce the overall long-term input of fertilisers and pesticides during the Operational Phase, which would therefore potentially result in a long-term beneficial effect on the River Nar SSSI.

#### Operational Phase Impacts on the River Nar SSSI

- 7.6.36 River Nar SSSI is a receptor of **national significance** (sensitivity) located approximately 0.5km north of the Site boundary. Operational activities would include routine servicing, maintenance activities, and replacement of equipment such as PV panels and BESS as required as well as management of vegetation, with in particular traffic movements infrequent and no on-site staff required on day-to-day basis (**Volume I, Chapter 5: Scheme Description**). As such, **no direct effects are anticipated** as a result of operational activities and the resulting magnitude of impacts is considered to be **negligible**, which is **not significant**. Accordingly, **no significant adverse effects** on River Nar SSSI are anticipated



as a result of the Operational Phase of the Scheme.

#### Decommissioning Phase Impacts on the River Nar SSSI

##### *Direct Effects*

- 7.6.37 The River Nar SSSI is a receptor of **national significance** (sensitivity), located approximately 0.5km north of the Scheme at its nearest point, and notified on the basis of the habitats and species it supports, including terrestrial and wetland habitats, and Lapwing respectively. The River Nar SSSI is physically removed from the Scheme, such that **no direct effects** are anticipated, and the resulting magnitude of impacts is **negligible**, which is considered **not significant**. Accordingly, **no significant adverse effects** on the River Nar SSSI in relation to direct pathways are anticipated as a result of the Decommissioning Phase of the Scheme.

##### *Air Quality*

- 7.6.38 The River Nar SSSI has been scoped in for assessment in relation to potential sensitivity for air quality effects during the Decommissioning Phase.
- 7.6.39 As set out in **Volume I, Chapter 9: Transport and Access**, (see sub-section 9.4) of this PEIR, key traffic routes identified as part of the routing strategy for the Decommissioning Phase of the Scheme. Key routes A and C cross the River Nar SSSI at a single point via a road bridge along the A47 approximately at Narborough, whereas key route B crosses the River Nar SSSI at a single point across a road bridge along the A1065 approximately at West Lexham, with traffic routes along Narford Road otherwise falling within approximately 200m of the River Nar SSSI at its closest point.
- 7.6.40 At this stage, background traffic movements associated with the Phases of the Scheme are not anticipated to increase substantially above background rates at river crossings and along the nearest proposed key routes. For further detail on expected routing and traffic flows refer to **Volume I, Chapter 9: Transport and Access**.
- 7.6.41 Further, it is anticipated that any elevation from background traffic movements during the Construction Phase will be of a short-term nature, with traffic flows distributed according to the routing strategy which details several routing options to be utilised as part of the Scheme.
- 7.6.42 Accordingly, air quality effects arising from dust settlement and vehicle emissions are anticipated to be limited and diffuse, such that under the proposed vehicle routing strategy, air quality effects are not anticipated, and the resulting magnitude of impacts is **negligible**, which is considered **not significant**.
- 7.6.43 Accordingly, **no significant adverse effects** of the Scheme are anticipated on the River Nar SSSI in terms of air quality throughout the Decommissioning Phase.

##### *Indirect Effects - Hydrological Pathways*

- 7.6.44 As set out within **Volume I, Chapter 12: Water Resources**, the River Nar SSSI is hydrologically linked to the Site via chalk aquifer baseflow and near-surface water supplies which drain into the River Nar SSSI, with main source of leached nitrate within the River Nar SSSI arising from diffuse agricultural pollution. The Study Area itself supports a number of individual ditches, of which all but one was recorded to be dry at the time of initial survey, whilst these do not appear to represent a connected network leading to the River Nar. Based on information within **Volume I, Chapter 12: Water Resources**, rainwater is anticipated to



infiltrate rapidly rather than generate substantial run-off within the Site. Accordingly, no potential surface water flow pathways to the River Nar SSSI are present, and rainwater is anticipated to infiltrate rapidly rather than generate substantial run-off.

- 7.6.45 In the absence of mitigation, there is potential for chemical spills and contaminated surface water runoff to reach the River Nar SSSI via overland flows which has the potential to degrade the habitats with adverse effects to the associated faunal and botanical assemblages of the River Nar SSSI, albeit given the separation and above considerations any risk would be low. Nonetheless, pollution prevention measures are included within the embedded mitigation. Accordingly, **no significant adverse effects** on the River Nar SSSI are anticipated through contamination and/or run-off via hydrological pathways through contamination and/or run-off as a result of Decommissioning Phase activities.

#### Construction Phase Impacts on Breckland Forest SSSI

##### *Direct Effects*

- 7.6.46 Breckland Forest SSSI is a receptor of **national significance** (sensitivity), located approximately 2.7km south of the Scheme at its nearest point, and notified on the basis of breeding Nightjar, Woodlark and Red Squirrel *Sciurus vulgaris*, as well as a number of distributionally restricted flora. Breckland Forest SSSI is physically well removed from the Scheme, such that **no direct effects** are anticipated, and the resulting magnitude of impacts is negligible, which is considered **not significant**. Accordingly, **no significant adverse effects** on the River Nar SSSI in relation to direct pathways are anticipated as a result of the Construction Phase of the Scheme.

##### *Air Quality*

- 7.6.47 Similarly, given the degree of separation (2.7km) between Breckland Forest SSSI and the Scheme, indirect effects such as disturbance via lighting and noise, or functionality linked land effects arising from air quality and dust settlement are not anticipated, and the resulting magnitude of impacts is negligible, which is considered **not significant**. Accordingly, **no significant adverse effects** on Breckland Forest SSSI are anticipated in relation to indirect pathways as a result of the Construction Phase of the Scheme.

#### Operational Phase Impacts on Breckland Forest SSSI

- 7.6.48 Breckland SSSI is a receptor of **national significance** (sensitivity) sited approximately 2.7km south of the Site boundary at its nearest point. Operational activities would include routine servicing, maintenance activities, and replacement of equipment such as PV panels and BESS as required as well as management of vegetation, with in particular traffic movements infrequent and no on-site staff required on day-to-day basis (**Volume I, Chapter 5: Scheme Description**). As such, **no direct effects are anticipated** as a result of operational activities and the resulting magnitude of impacts is considered to be **negligible**, which is **not significant**. Accordingly, **no significant adverse effects** on Breckland Forest SSSI are anticipated as a result of the Operational Phase of the Scheme.

#### Decommissioning Phase Impacts on Breckland Forest SSSI

##### *Direct Effects*

- 7.6.49 Breckland Forest SSSI is a receptor of **national significance** (sensitivity), located approximately 2.7km south of the Scheme at its nearest point, and notified on the basis of



breeding Nightjar, Woodlark and Red Squirrel *Sciurus vulgaris*, as well as a number of distributionally restricted flora. Breckland Forest SSSI is physically well removed from the Scheme, such that **no direct** effects are anticipated, and the resulting magnitude of impacts is negligible, which is considered **not significant**. Accordingly, **no significant adverse effects** on the River Nar SSSI in relation to direct pathways are anticipated as a result of the Decommissioning Phase of the Scheme.

#### *Air Quality*

- 7.6.50 Similarly, given the degree of separation (2.7km) between Breckland Forest SSSI and the Scheme, indirect effects such as disturbance via lighting and noise, or functionality linked land effects arising from air quality and dust settlement are not anticipated, and the resulting magnitude of impacts is negligible, which is considered **not significant**. Accordingly, **no significant adverse effects** on Breckland Forest SSSI are anticipated in relation to indirect pathways as a result of the Decommissioning Phase of the Scheme.

### **Other National Statutory Ecological Designations within 5km of the Scheme**

#### **Construction, Operational and Decommissioning Phases**

- 7.6.51 Other Statutory Designations of national significance (sensitivity) considered in this preliminary assessment, and noted to be present within 5km of the Scheme are as listed below:
- Castle Acre Common SSSI
  - Narborough Railway Embankment SSSI; and
  - East Walton & Adcock's Common SSSI.

#### *Direct Effects*

- 7.6.52 The above receptors are all located in excess of 0.5km from the Scheme, such that no direct effects are anticipated, and the resulting magnitude of impacts is considered to be negligible, which is **not significant**. Accordingly, **no significant adverse effects** on Castle Acre Common SSSI, Narborough Railway Embankment SSSI, and East Walton & Adcock's Common SSSI in relation to direct pathways are anticipated as a result of the Construction, Operational and Decommissioning Phases of the Scheme.

#### *Indirect Effects*

- 7.6.53 Similarly, given the degree of separation ( $\geq 0.5$ km) between the above receptors of **national significance** (sensitivity) and the Scheme, **indirect effects** such as disturbance via lighting and noise, or functionality linked land effects arising from air quality and dust settlement are **not anticipated**, and the resulting magnitude of impacts is negligible, which is considered **not significant**. Accordingly, **no significant adverse effects** on Castle Acre Common SSSI, Narborough Railway Embankment SSSI, and East Walton & Adcock's Common SSSI are anticipated in relation to indirect pathways as a result of the Construction, Operational and



Decommissioning Phases of the Scheme.

## Non-Statutory Ecological Designations within 2km of the Scheme

### Construction, Operational and Decommissioning Effects

#### Construction Phase Impacts on River Road RNRs (refs. 033086 & U22086)

##### *Direct Effects*

- 7.6.54 River Road RNRs (refs.033086 & U22086) are non-statutory designations of **local significance** (sensitivity) located adjacent to the Site boundary.
- 7.6.55 RNR 033086 is designated for the presence of Dropwort, whereas RNR U22086 is designated for the presence of Knapweed Broomrape. The RNRs are located along the existing public highway of River Road, outside of the Site boundary. Ecological buffers have been embedded into the design of the Scheme from an early stage to avoid adverse impacts by way of damage to the vegetation present through direct damage or encroachment, such that the resulting magnitude of impact is negligible, which is considered **not significant**. Accordingly, **no significant adverse effects** in relation to direct pathways are anticipated on RNRs 033086 and U22086 as a result of the Construction Phase of the Scheme.

##### *Indirect Effects*

- 7.6.56 As above, RNRs 033086 and U22086 are non-statutory designations of local significance (sensitivity) located in adjacent to the Site boundary. Embedded mitigation measures to minimise the likelihood and severity of pollution events include dust control measures contained within a Construction Dust Risk Assessment forming part of the oCEMP, along with pollution prevention measures similarly incorporated within the oCEMP. Accordingly, following the implementation of the embedded mitigation, **no significant adverse effects** on the RNRs are anticipated through contamination and/or run-off as a result of Construction Phase activities.

#### Operational Phase Impacts on River Road RNRs

- 7.6.57 As above, RNRs 033086 and U22086 are non-statutory designations of local significance (sensitivity) located in adjacent to the Site boundary. Operational activities would include routine servicing, maintenance activities, and replacement of equipment such as PV panels and BESS as required as well as management of vegetation, with in particular traffic movements infrequent and no on-site staff required on day-to-day basis (**Volume I, Chapter 5: Scheme Description**), all of which will be well-removed from the locations of the RNRs. As such, **no direct effects are anticipated** as a result of operational activities and the resulting magnitude of impacts is considered to be **negligible**, which is **not significant**. Accordingly, **no significant adverse effects** on River Road RNRs are anticipated as a result of the Operational Phase of the Scheme.

#### Decommissioning Phase Impacts on River Road RNRs (refs. 033086 & U22086)

##### *Direct Effects*

- 7.6.58 River Road RNRs (refs.033086 & U22086) are non-statutory designations of local significance (sensitivity) located in adjacent to the Site boundary.
- 7.6.59 RNR 033086 is designated for the presence of Dropwort, whereas RNR U22086 is designated



for the presence of Knapweed Broomrape. The RNRs are located along the existing public highway of River Road, outside of the Site boundary. Ecological buffers have been embedded into the design of the Scheme from an early stage to avoid adverse impacts by way of damage to the vegetation present through direct damage or encroachment, such that the resulting magnitude of impact is negligible, which is considered **not significant**. Accordingly, **no significant adverse effects** in relation to direct pathways are anticipated on RNRs 033086 and U22086 as a result of the Decommissioning Phase of the Scheme.

#### *Indirect Effects*

- 7.6.60 As above, RNRs 033086 and U22086 are non-statutory designations of local significance (sensitivity) located in adjacent to the Site boundary. Embedded design considerations to minimise the likelihood and severity of pollution events, dust deposition and run-off have been incorporated into the Scheme, such that the resulting magnitude of impacts is considered to be moderate, which is **not significant**. Accordingly, **no significant adverse effects** on the River Road RNRs 033086 and U22086 in relation to degradation effects arising from pollution events, dust deposition and run-off are anticipated as a result of the Decommissioning Phase of the Scheme.

### **Other Non-Statutory Ecological Designations within 2km**

#### **Construction, Operational and Decommissioning Phase Effects**

##### Construction, Operational and Decommissioning Impacts on Non-statutory Ecological Designations

- 7.6.61 Other Non-statutory Ecological Designations of local importance (sensitivity) present within 2km of the Site are listed below;
- Land Adjacent to River Nar CWS ref. 895, 945 & 902
  - Priory Meadow CWS
  - Land West of Castle Acre CWS
  - Mill House Lake CWS
  - Castle Acre Castle CWS
  - Mill House CWS
  - Narford Lake CWS
  - The Carr CWS
  - Lynn Road Disused Railway CWS
  - Priory Road RNR ref. U22074; and
  - Walton Road ref. C65.

#### *Direct Impacts*

- 7.6.62 The above designations are notified on the basis of the habitats and vegetation/flora supported. The above receptors are all located in excess of 0.5km from the Scheme, such that **no direct effects** are anticipated, and the resulting magnitude of impacts is **negligible**, which is **not significant**. Accordingly, **no significant adverse effects** on Land Adjacent to



River Nar CWS ref. 895, 945 & 902, Priory Meadow CWS, Land West of Castle Acre CWS, Mill House Lake CWS, Castle Acre Castle CWS, Mill House CWS, Narford Lake CWS, The Carr CWS, Lynn Road Disused Railway CWS, Priory Road RNR ref. U22074, and Walton Road ref. C65 in relation to direct pathways are anticipated as a result of the Construction, Operational and Decommissioning Phases of the Scheme.

#### *Indirect Effects*

- 7.6.63 The above designations of **local importance** (sensitivity) are physically well removed from the Scheme. No indirect effects on Walton Road RNR, Priory Road RNR and Lynn Road Disused Railway CWS are anticipated, and the resulting magnitude of impacts for these designations negligible, which is considered **not significant**. Accordingly, **no significant adverse effects** in relation to indirect pathways are anticipated on Walton Road RNR, Priory Road RNR and Lynn Road Disused Railway CWS in relation to indirect pathways as a result of the Construction, Operational and Decommissioning Phases of the Scheme.
- 7.6.64 The remaining designations within the above list are noted to interface with the River Nar SSSI along its east to west flow. Accordingly, in the absence of additional mitigation, and given the connected nature of Land Adjacent to River Nar CWS ref. 895, 945 & 902, Priory Meadow CWS, Land West of Castle Acre CWS, Mill House Lake CWS, Castle Acre Castle CWS, Mill House CWS, Narford Lake CWS and The Carr CWS to the River Nar, there remains potential for the Scheme to generate indirect degradation effects by way of chemical spills and contaminated surface water runoff, albeit given the distance and separation along with limited potential flow routes (as set out above in relation to the River Nar SSSI) any risk of runoff reaching the River Nar (and subsequently the above non-statutory designations) would be low. Nonetheless, embedded design considerations to minimise the likelihood and severity of pollution events, dust deposition and run-off have been incorporated into the Scheme should this occur, the magnitude of such impacts is moderate, which is considered **not significant**. Accordingly, in the absence of additional mitigation, it is anticipated that the Scheme will generate **no significant adverse effects** on Land Adjacent to River Nar CWS ref. 895, 945 & 902, Priory Meadow CWS, Land West of Castle Acre CWS, Mill House Lake CWS, Castle Acre Castle CWS, Mill House CWS, Narford Lake CWS and The Carr CWS during the Construction, Operational and Decommissioning Phases of the Scheme.

### **Habitats**

#### **Construction, Operation and Decommissioning Phase Effects**

##### Construction Phase Impacts on Trees (Including Veteran Trees)

#### *Direct Effects*

- 7.6.65 Trees (including veteran trees) within the Site are of significance at the **Site level** (sensitivity). The retention of individual trees has been designed into the Scheme (including through routing of access via existing field entrances and access points), with suitable buffers of 10m (or 15x stem diameter in the case of veteran trees), to be maintained except as specified by detailed arboricultural advice. As such, subject to the embedded mitigation, no loss of trees is anticipated as a result of the Scheme, and the resulting magnitude of impacts is negligible, which is considered **not significant**. Accordingly, **no significant adverse effects** on trees (including veteran trees) within the Site are anticipated in relation to direct pathways as a result



of the Construction Phase of the Scheme.

*Indirect Effects*

- 7.6.66 Trees (including veteran trees) within the Site are of significance at the **Site level** (sensitivity). While embedded mitigation measures to minimise the likelihood and severity of pollution events, dust deposition and run-off have been incorporated into the Scheme, there exists potential for indirect degradation effects through pollution events and dust settlement. Nonetheless, embedded design considerations to minimise the likelihood and severity of pollution events, dust deposition and run-off have been incorporated into the Scheme such that the resulting magnitude of impacts is negligible, which is considered **not significant**. Accordingly, **no significant adverse effects** on trees (including veteran trees) it is anticipated that the trees (including veteran trees) within the Site are anticipated in relation to direct pathways as a result of the Construction Phase of the Scheme.

Operational Phase Impacts on Trees (Including Veteran Trees)

*Direct Effects*

- 7.6.67 The trees (including veteran trees) within the Site are of significance at the Site level (sensitivity). The retention of individual trees has been designed into the Scheme (including through routing of access via existing field entrances and access points), with suitable buffers of 10m (or 15x stem diameter in the case of veteran trees), to be maintained except as specified by detailed arboricultural advice. Embedded mitigation includes additional tree planting with timescales for implementation and provisions to be included within the oLEMP submitted with the ES. As such, subject to the embedded mitigation, no loss of existing trees is anticipated as a result of the Scheme, rather, the Scheme will deliver additional new tree planting, anticipated to result in a magnitude of impacts considered to be of a minor to major beneficial effect at the Site / local level, which is **not significant**. Accordingly, **non-significant beneficial effects** on trees (including veteran trees) within the Site are anticipated in relation to direct pathways as a result of the Operational Phase of the Scheme.

*Indirect Effects*

- 7.6.68 The trees (including veteran trees) within the Site are of significance at the Site level (sensitivity). Once constructed, operational use of the Site is unlikely to result in any significant dust deposition or pollution events in relation to trees. As such the resulting magnitude of impacts is considered to be negligible, which is **not significant**. Accordingly, **no significant adverse effects** on trees (including veteran trees) within the Site are anticipated in relation to degradation effects as a result of the Operational Phase of the Scheme.

Decommissioning Phase Impacts on Trees (Including Veteran Trees)

*Direct Effects*

- 7.6.69 The trees (including veteran trees) within the Site are of significance at the **Site level** (sensitivity). The retention of individual trees has been designed into the Scheme (including through routing of access via existing field entrances and access points), with suitable buffers of 10m (or 15x stem diameter in the case of veteran trees), to be maintained except as specified by detailed arboricultural advice. Embedded mitigation includes additional tree planting with timescales for implementation and provisions to be included within the oLEMP submitted with the ES. As such, subject to the embedded mitigation, no loss of existing trees is anticipated as a result of the Scheme, rather, the Scheme will deliver additional new tree



planting, anticipated to result in a magnitude of impacts considered to be of a minor to major beneficial effect at the Site / local level, which is **not significant**. Accordingly, **non-significant beneficial effects** on trees (including veteran trees) within the Site are anticipated in relation to direct pathways as a result of the Decommissioning Phase of the Scheme.

#### *Indirect Effects*

- 7.6.70 Trees (including veteran trees) within the Site are of significance at the **Site level** (sensitivity). Embedded mitigation measures to minimise the likelihood and severity of pollution events include, dust deposition and run-off have been incorporated into the Scheme, following which, potential for indirect degradation effects through pollution events and dust settlement would be removed, such that the resulting magnitude of impacts is negligible, which is considered **not significant**. Accordingly, **no significant direct adverse effects** on trees (including veteran trees) within the Site are anticipated in relation to degradation effects as a result of the Decommissioning Phase of the Scheme, albeit at the Site level only.

#### Construction Phase Impacts on Woodland

##### *Direct Effects*

- 7.6.71 The woodland within the Site is of significance at the **Site level** (sensitivity). As part of the Scheme design and embedded mitigation, no direct loss of woodland is anticipated as existing woodland habitats within the Site boundary as all access, hardware and cabling installation will avoid the woodland habitats which occur within and adjacent to the Site, such that the magnitude of impact is **negligible**, which is considered **not significant**. Accordingly, **no significant adverse effects** on woodland within the Site are anticipated in relation to direct pathways as a result of the Construction Phase of the Scheme.

##### *Indirect Effects*

- 7.6.72 The woodland within the Site is of significance at the **Site level** (sensitivity). Potential exists for construction activities to result in incidental damage, pollution, dust deposition or contamination to woodland margins in the absence of mitigation, albeit this would not be anticipated to be significantly greater than the existing baseline position as a result of current agricultural activities such as ploughing and crop harvesting. Further, any effect would be temporary and would likely be limited to the margins of the woodland, whilst embedded mitigation measures are proposed (including as set out within the oCEMP) which will further prevent any potential effects, such that the magnitude of impact is **negligible**, which is **not significant**. Accordingly, **no significant adverse effects** on woodland as a result of Construction Phase activities.

#### Operational Phase Impacts on Woodland

##### *Direct Effects*

- 7.6.73 The woodland within the Site is of significance at the **Site level** (sensitivity) and will be fully retained within the embedded mitigation, such that no direct effects on woodland are anticipated. The magnitude of impact is therefore **negligible**, which is **not significant**. Accordingly, **no significant adverse effects** on woodland within the Site are anticipated in



relation to direct pathways as a result of the Operational Phase of the Scheme.

*Indirect Effects*

- 7.6.74 The woodland within the Site is of significance at the **Site level** (sensitivity). Once constructed, operational use of the Site is unlikely to result in any significant dust deposition or pollution events in relation to woodland. As such the resulting magnitude of impacts is considered to be **negligible**, which is **not significant**. Accordingly, **no significant indirect adverse effects** on woodland are anticipated in relation to indirect pathways as a result of Operational Phase activities.

Decommissioning Phase Impacts on Woodland

*Direct Effects*

- 7.6.75 The woodland within the Site is of significance at the **Site level** (sensitivity). As part of the Scheme design and embedded mitigation, no direct loss of woodland is anticipated as existing woodland habitats within the Site boundary as all access, hardware and cabling deconstruction will avoid the woodland habitats which occur within and adjacent to the Site, such that the magnitude of impact is **negligible**, which is considered **not significant**. Accordingly, **no significant adverse effects** on woodland within the Site are anticipated in relation to direct pathways as a result of the Decommissioning Phase of the Scheme.

*Indirect Effects*

- 7.6.76 The woodland within the Site is of significance at the **Site level** (sensitivity). Potential exists for decommissioning activities to result in incidental damage, pollution, dust deposition or contamination to woodland margins in the absence of mitigation, albeit this would not be anticipated to be significantly greater than the existing baseline position as a result of current agricultural activities such as ploughing and crop harvesting. Further, any effect would be temporary and would likely be limited to the margins of the woodland, whilst embedded mitigation measures are proposed (including as set out within the oDEMP) which will further prevent any potential effects, such that the magnitude of impact is **negligible**, which is **not significant**. Accordingly, **no significant adverse effects** on woodland as a result of Decommissioning Phase activities.

Construction Phase Impacts on Hedgerows and Tree Lines

*Direct Effects*

- 7.6.77 The hedgerows and tree lines within the Site are of significance at the **Site level** (sensitivity). The retention of existing hedgerows and tree lines has been incorporated into the Scheme design, including the use of existing field access routes and hedgerow gaps for construction activities to avoid loss of hedgerows to accommodate access routes. As such, any removal of hedgerows would be anticipated to be limited to minor widening of existing gaps to ensure appropriate access.
- 7.6.78 Subject to ongoing development of detailed Scheme design information, the magnitude of impacts at the current stage is considered to be **negligible**, which is considered **not significant**. Accordingly, **no significant adverse effects** on hedgerows and treelines within the Site are anticipated in relation to direct pathways as a result of the Construction Phase of



the Scheme.

*Indirect Effects*

- 7.6.79 The hedgerows and treelines within the Site are of significance at the **Site level** (sensitivity). Potential exists for construction activities to result in incidental damage, pollution, dust deposition or contamination, albeit this would not be anticipated to be significantly greater than the existing baseline position as a result of current agricultural activities such as ploughing and crop harvesting. Embedded mitigation including maintenance of buffers will further reduce potential damage. Following the implementation of the embedded mitigation, the magnitude of impacts on hedgerows and treelines arising from the construction of the Site is considered to be negligible, which is **not significant**. Accordingly, **no significant adverse impacts** on hedgerows and treelines are anticipated in relation to direct pathways as a result of the Construction Phase activities albeit at the Site level only.

Operational Phase Impacts on Hedgerows and Tree Lines

*Direct Effects*

- 7.6.80 The hedgerows and tree lines within the Site are of significance at the **Site level** (sensitivity). The retention of existing hedgerows and tree lines has been incorporated into the Scheme, with proposed access routes limited to existing field accesses and gaps in hedgerows such that no loss of hedgerows or tree lines is anticipated as a result of operational requirements. Embedded mitigation includes additional hedgerow and treeline planting with timescales for implementation and provisions to be included within the oLEMP submitted with the ES. Accordingly, the magnitude of impacts on hedgerows and treelines arising from the operation of the Site is considered to be of **minor to major beneficial effect at the Site / local level**, which is **not significant**. Accordingly, **non-significant beneficial impacts** on hedgerows and treelines are anticipated in relation to direct pathways as a result of the Operational Phase.

*Indirect Effects*

- 7.6.81 The hedgerows and treelines within the Site are of significance at the Site level (sensitivity). Once constructed, operational use of the Site is unlikely to result in any significant dust deposition or pollution events in relation to hedgerows or tree lines. As such the resulting magnitude of impacts is considered to be negligible, which is **not significant**. Accordingly, **no significant indirect adverse effects** on hedgerows and tree lines are anticipated in relation to indirect pathways as a result of Operational Phase activities.

Decommissioning Phase Impacts on Hedgerows and Tree Lines

*Direct Effects*

- 7.6.82 The hedgerows and tree lines within the Site are of significance at the **Site level** (sensitivity). The retention of existing hedgerows and tree lines has been incorporated into the Scheme design. In line with the Construction Phase, existing field access routes and hedgerow gaps would be utilised for decommissioning activities such that any necessary loss of hedgerows and tree lines would be anticipated to be limited to minor (temporary) widening of existing gaps to ensure appropriate access. Further, embedded mitigation includes additional hedgerow and treeline planting to be retained following decommissioning, with timescales for implementation and provisions to be included within the oLEMP submitted with the ES. Accordingly, the magnitude of impacts on hedgerows and treelines arising from the decommissioning of the Site is considered to be of a **minor to major beneficial effect at the Site / local level**, which



is considered **not significant**. Accordingly, it is anticipated that the Scheme will generate **non significant beneficial impacts** on hedgerows and treelines as a result of the Decommissioning Phase.

#### *Indirect Effects*

- 7.6.83 The hedgerows and treelines within the Site are of significance at the **Site level** (sensitivity). Potential exists for decommissioning activities to result in incidental damage, pollution, dust deposition or contamination to hedgerows and tree lines, albeit this would not be anticipated to be significantly greater than the existing baseline position as a result of current agricultural activities such as ploughing and crop harvesting, whilst embedded mitigation in the form of maintenance of buffers will further reduce potential damage, such that the magnitude of impacts on hedgerows and treelines arising from the proposals is negligible. decommissioning effects would be **short term and temporary**, and likely limited to specific areas within the Site at any time, such that at most the magnitude of any impact is therefore **considered negligible**, which is **not significant**. Accordingly, following the embedded mitigation, it is anticipated that the Scheme has potential to result in temporary **no significant adverse effects** on hedgerows and treelines in relation to indirect pathways as a result of Decommissioning Phase activities albeit at the Site level only.

#### Construction Phase Impacts on Ponds

##### *Direct Effects*

- 7.6.84 The ponds within the Site are of significance at the **Site level** (sensitivity). No ponds are anticipated to be directly impacted through habitat loss as a result of the Scheme. whilst protective 10m buffers are included to all ponds as part of the embedded mitigation, such that the magnitude of potential impacts on ponds is **negligible**, which is **not significant**. Accordingly, it is anticipated that the Scheme will generate **no significant adverse impacts** on ponds in relation to direct pathways as a result of the Construction Phase.

##### *Indirect Effects*

- 7.6.85 The ponds within the Site are of significance at the **Site level** (sensitivity). Potential exists for construction activities to result in incidental damage, pollution, dust deposition or contamination of ponds and associated marginal habitats, albeit this would not be anticipated to be significantly greater than the existing baseline position as a result of current agricultural activities such as ploughing and crop harvesting, whilst embedded mitigation in the form of maintenance of buffers will further reduce potential damage. Construction effects would be short term and temporary, and likely limited to specific areas within the Site at any time, whilst the implementation of embedded mitigation is such that the magnitude of any impact is **negligible**, which is considered **not significant**. Accordingly, in the absence of additional mitigation, it is anticipated that the Scheme has potential to result in temporary **no significant adverse effects** on ponds in relation to indirect pathways as a result of Construction Phase activities albeit at the Site level only.

#### Operational Phase Impacts on Ponds

##### *Direct Effects*

- 7.6.86 The ponds within the Site are of significance at the Site level (sensitivity). No ponds are anticipated to be directly impacted through habitat loss as a result of the Scheme, whilst the inclusion of 10m protective buffers around ponds is incorporated as part of the embedded



mitigation, such that the magnitude of impact is considered to be negligible, which is **not significant**. Accordingly, **no significant adverse impacts** on ponds are anticipated in relation to direct pathways as a result of the Construction Phase.

#### *Indirect Effects*

- 7.6.87 The ponds within the Site are of significance at the **Site level** (sensitivity). Once constructed, operational use of the Site is unlikely to result in any significant dust deposition or pollution events in relation to ponds. As such the resulting magnitude of impacts is **negligible**, which is considered **not significant**. Accordingly, **no significant indirect adverse effects** on ponds are anticipated in relation to indirect pathways as a result of Operational Phase activities.

#### Decommissioning Phase Impacts on Ponds

##### *Direct Effects*

- 7.6.88 The ponds within the Site are of significance at the **Site level** (sensitivity). The retention of existing ponds has been incorporated into the Scheme design along with associated protective buffers. In line with the Construction Phase no ponds are anticipated to be directly impacted through habitat loss as a result of the Decommissioning Phase, with decommissioning activities located outside of the buffer zones included as part of the embedded mitigation, such that the magnitude of impact is **negligible**, which is **not significant**.

##### *Indirect Effects*

- 7.6.89 The ponds within the Site are of significance at the **Site level** (sensitivity). Potential exists for decommissioning activities to result in incidental damage, pollution, dust deposition or contamination of ponds and associated marginal habitats, albeit this would not be anticipated to be significantly greater than the existing baseline position as a result of current agricultural activities such as ploughing and crop harvesting, whilst embedded mitigation in the form of maintenance of buffers will further reduce potential damage. Further, decommissioning effects would be short term and temporary, and likely limited to specific areas within the Site at any time, such that at most the magnitude of any impact is **negligible**, which is **not significant**. Accordingly, following the mitigation measures set out, **no significant adverse effects** on ponds in relation to indirect pathways as a result of Construction Phase activities albeit at the Site level only.

#### Construction Phase Impacts on Invasive and Non-Native Species (INNS)

##### *Direct and Indirect Effects*

- 7.6.90 The presence of INNS within the Site is of significance at the **Site level** (sensitivity). Variegated Yellow Archangel and Three-cornered Garlic are present within the Study Area, albeit extremely limited in extent, particularly in relation to the scale of the Site. Both of these species are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), such that it is an offence under this legislation to plant or cause the spread of these species into the wild. The currently recorded locations of these species are limited to buffer areas to be retained as part of the embedded mitigation such that their currently recorded locations will remain unaffected, albeit potential exists for growth into affected areas over time and/or indirect disturbance through accidental encroachment into buffer areas. Embedded mitigation includes measures to prevent the spread of these species as a result of works at the Site, such that **no significant adverse effects** are anticipated in regard to INNS. Accordingly, following the embedded mitigation, **no significant adverse effects** are anticipated in regard to non-native



invasive species during Construction Phase activities.

#### Operational Phase Impacts on Invasive and Non-Native Species

##### *Direct and Indirect Effects*

- 7.6.91 The presence of INNS within the Site is of significance at the **Site level** (sensitivity). Variegated Yellow Archangel and Three-cornered Garlic are present within the Study Area albeit extremely limited in extent, particularly in relation to the scale of the Site. Both of these species are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), such that it is an offence under this legislation to plant or cause the spread of these species into the wild. The currently recorded locations of these species are limited to buffer areas to be retained as part of the embedded mitigation such that their currently recorded locations will remain unaffected, albeit potential exists for growth into affected areas over time. Further, given the likely reduced intensity of management and disturbance due to the cessation of intensive arable production during the Operational Phase of development, potential for disturbance or spread of these species would be anticipated to be reduced in relation to the existing baseline position. As such, the magnitude of impact is **negligible**, which is considered **not significant**. Accordingly, **no significant adverse impacts** on INNS are anticipated in relation to direct and indirect pathways as a result of the Operational Phase.

#### Decommissioning Phase Impacts on Invasive and Non-Native Species

##### *Direct and Indirect Effects*

- 7.6.92 The presence of INNS within the Site is of significance at the **Site level** (sensitivity). Variegated Yellow Archangel and Three-cornered Garlic are present within the Study Area at select locales associated with hedgerows and field margins. Both of these species are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), such that it is an offence under this legislation to plant or cause the spread of these species into the wild. The currently recorded locations of these species are limited to buffer areas to be retained as part of the embedded mitigation such that their currently recorded locations will remain unaffected, albeit potential exists for growth into affected areas over time and/or indirect disturbance through accidental encroachment into buffer areas (whilst the substantial time prior to the Decommissioning Phase is such that there is a high level of uncertainty over the likelihood of continued presence and/or status of INNS at the Site at that time). Embedded mitigation includes measures to prevent the spread of these species as a result of works at the Site, such that **no significant adverse effects** are anticipated in regard to INNS. Accordingly, following the embedded mitigation, **no significant adverse effects** are anticipated in regard to Decommissioning Phase activities.

## **Impacts on Fauna**

### **Construction, Operation and Decommissioning Phase Effects**

#### Construction Phase Impacts on Bats - Roosting

##### *Direct Effects*

- 7.6.93 The Site includes a number of trees including those containing potential roosting features (PRF), predominantly located within the field boundary hedgerows and treelines. No buildings will be affected by the Scheme, however, the presence of roosting bats has been confirmed incidentally within a single offsite Barn, which will remain unaffected under the Scheme.



Without further survey work to confirm the nature, species and status of any individual roosts, it is not possible to confirm the scale of significance of any individual roost (e.g. small roosts of common species would likely be of significance at the Site level, whereas large maternity roosts of rarer species would be of significance at larger scale). However, none of the relevant trees or buildings will be affected as a result of construction activities, whilst (as set out above) buffers will be retained throughout construction activities such that regardless of the scale of significance should individual roosts be present, following the embedded mitigation the magnitude of impact is considered to be negligible, which is **not significant**. Accordingly, **no significant adverse impacts** on roosting bats are anticipated in relation to loss of roosts as a result of the Construction Phase.

#### *Indirect Effects*

- 7.6.94 Given the retention of the existing trees and buildings with associated buffers, potential for adverse impacts on roosting bats during Construction Phase activities would be limited to disturbance through noise and lighting associated with construction activities. Any such potential would be short-term and temporary prior to mitigation. Further, measures set out within embedded mitigation (including lighting considerations as part of the oCEMP) will ensure that potential for disturbance effects is avoided such that the magnitude of impact would be **negligible**, which is considered **non significant**. Accordingly, **no significant adverse impacts** on roosting bats are anticipated in relation to indirect pathways as a result of the Construction Phase of the Scheme.

#### Operational Phase Impacts on Bats - Roosting

##### *Direct and Indirect Effects*

- 7.6.95 The Site includes a number of trees including those containing potential roosting features (PRF), predominantly located within the field boundary hedgerows and treelines. No buildings will likely be affected by the Scheme; however, the presence of roosting bats has been confirmed incidentally within a single offsite barn, which will remain unaffected under the Scheme. The trees and buildings at the Site will be retained along with suitable undisturbed buffers as part of the Scheme. Further, no lighting is proposed within the Solar PV Site (such that no lighting is anticipated within the vicinity of potential roosting features).
- 7.6.96 As such the magnitude of impact is **negligible**, which is considered **not significant**. Accordingly, it is anticipated that the Scheme will generate **no significant adverse impacts** on roosting bats in relation to direct or indirect pathways as a result of the Operational Phase.

#### Decommissioning Phase Impacts on Bats - Roosting

- 7.6.97 As above, the Site includes a number of trees including those containing potential roosting features (PRF), predominantly located within the field boundary hedgerows and treelines. No buildings will be affected by the Scheme; however, the presence of roosting bats has been confirmed incidentally within a single offsite barn, which will remain unaffected under the Scheme. In respect of trees in particular given the typical timescales, transitional nature and lifespan of potential roosting features associated with trees, the precise location and nature of individual features would be expected to have changed considerably at the Site by the time of decommissioning, albeit it is anticipated that a similar overall level of potential features would remain present at the Site at that time.
- 7.6.98 Given the retention of the existing trees and buildings with associated buffers, potential for adverse impacts on roosting bats during construction activities would be limited to potential



disturbance through noise and lighting associated with construction activities. Any such potential would be short-term and temporary. The trees and buildings at the Site will be retained along with suitable undisturbed buffers as part of the Scheme. Further, no lighting is proposed within the Solar PV Site (such that no lighting is anticipated within the vicinity of potential roosting features). As such the magnitude of impact is **negligible**, which is considered **not significant**. Accordingly, it is anticipated that the Scheme will generate **no significant adverse impacts** on roosting bats in relation to direct or indirect pathways as a result of the Decommissioning Phase of the Scheme.

#### Construction Phase Impacts on Bats – Foraging / Commuting

##### *Direct Effects*

- 7.6.99 On the basis of the survey work undertaken, the assemblage of commuting and foraging bats recorded within the Study Area includes regular use by rarer species (ie Barbastelle), albeit limited to key commuting corridors with the majority of habitats unsuitable for this species such that the significance is considered to be at the **Site-Regional level** (sensitivity). The Scheme design incorporates the retention of hedgerows, treelines and woodland blocks, which constitute key movement corridors along which foraging and commuting bats traverse the Study Area, along with the key focus of foraging features. As set out above, embedded mitigation incorporates the retention of these features within appropriate development exclusion buffers outside of construction areas. As such, no direct loss of potentially important navigational features, commuting routes or foraging areas is anticipated. The removal of habitats of low value including the intensive the arable land will result in a potential temporary loss in available foraging habitat, albeit given the intensive arable management these areas are unlikely to support a significant invertebrate prey resource. The magnitude of impacts arising from temporary low value habitat loss therefore is considered **negligible**, which is **not significant**. Accordingly, **no significant adverse impacts** on foraging/commuting bats are anticipated in relation to loss of habitats as a result of the Construction Phase.

##### *Indirect Effects*

- 7.6.100 Given the retention of the existing hedgerows, tree lines and mature vegetation with associated buffers, potential for adverse impacts on foraging/commuting bats during construction activities would be limited to disturbance through noise and lighting associated with construction activities. Any such potential would be short-term and temporary in the absence of mitigation. Further, embedded mitigation incorporates suitable measures to ensure bats are safeguarded. As such the magnitude of impact is **negligible**, which is considered **not significant**. Accordingly, it is anticipated that the Scheme will generate **no significant adverse impacts** in relation to noise and lighting with regard to foraging/commuting bats as a result of the Construction Phase of the Scheme.

#### Operational Phase Impacts on Bats – Foraging / Commuting

##### *Direct Effects*

- 7.6.101 On the basis of the survey work undertaken, the assemblage of commuting and foraging bats recorded within the Study Area includes regular use by rarer species (ie Barbastelle), albeit limited to key commuting corridors with the majority of habitats unsuitable for this species such that the significance is considered to be at the **Site-Regional level** (sensitivity). The Scheme design incorporates the retention of hedgerows, treelines and woodland blocks, which constitute key movement corridors along which foraging and commuting bats traverse the Study Area, along with the key focus of foraging features. As set out above, embedded



mitigation incorporates the retention of these features within appropriate development exclusion buffers. As such, no loss of potentially important navigational features, commuting routes or foraging areas is anticipated. The removal of habitats of low value including the intensively farmed arable land will result in a temporary loss in available foraging habitat, albeit given the intensive arable management these areas are unlikely to support a significant invertebrate prey resource. The magnitude of impacts arising from temporary low value habitat loss is **negligible**, which is considered **not significant**. Accordingly, **no significant adverse impacts** on foraging/commuting bats are anticipated in relation to habitat loss as a result of the Operational Phase.

#### *Indirect Effects*

- 7.6.102 On the basis of the above considerations, no significant loss of foraging or commuting habitats is anticipated as a result of the Scheme, albeit any lighting installed within the Scheme would have potential to impact on bats utilising key corridors. However, no lighting is proposed within the Solar PV Site areas (such that no lighting is anticipated within the vicinity of the majority of corridors). Proposed new safety lighting will be required, associated with the Customer and National Grid Substations, BESS and grid connections, albeit will be limited to the minimum requirements for Health and Safety as part of embedded mitigation. Given the need for lighting (and noting the limited extent of affected area under the Scheme), the magnitude of impacts arising through indirect pathways (lighting) would be anticipated to be **negligible**, which is considered **not significant**. Accordingly, in the absence of additional mitigation the Scheme **no significant adverse effects** are anticipated in regard to foraging/commuting bats in relation to disturbance (lighting) during the Operational Phase of the Scheme.

#### Decommissioning Phase Impacts on Bats - Foraging / Commuting

#### *Direct Effects*

- 7.6.103 On the basis of the survey work undertaken, the assemblage of commuting and foraging bats recorded within the Study Area includes regular use by rarer species (ie Barbastelle), albeit limited to key commuting corridors with the majority of habitats unsuitable for this species such that the significance is considered to be at the **Site-Regional level** (sensitivity). Decommissioning activities will be focussed on removal of infrastructure and reversion to agricultural uses in line with the current baseline. Accordingly, no direct loss of potentially important navigational features, commuting routes or foraging areas is anticipated. The magnitude of impacts arising from temporary low value habitat loss is negligible, which is considered **not significant**. Accordingly, **no significant adverse impacts** on foraging/commuting bats are anticipated in relation to habitat loss as a result of the Decommissioning Phase.

#### *Indirect Effects*

- 7.6.104 Given the retention of the existing hedgerows, tree lines and mature vegetation with associated buffers, potential for adverse impacts on foraging/commuting bats during decommissioning activities would be limited to disturbance through noise and lighting associated with construction activities. Any such potential would be short-term and temporary in the absence of additional mitigation, whilst measures set out within the embedded mitigation (including as part of the oCEMP) will ensure bats are safeguarded. Accordingly the magnitude of impact would be negligible, which is considered **not significant**, such that **no significant adverse effects** are anticipated in regard to foraging/commuting bats in relation to temporary



disturbance (noise and lighting) as a result of the Decommissioning Phase of the Scheme.

#### Construction Phase Impacts on Badger

##### *Direct Effects*

- 7.6.105 A small number of Badger setts and activity are present at the Site, which are therefore considered to be of significance at the **Site level** (sensitivity). Specific details relating to the locations of Badger setts within the Study Area can be located within **Volume III, Appendix 7.2**. Existing Badger setts will be fully retained and minimum 30m development exclusion buffers maintained as part of the embedded mitigation for the Scheme.
- 7.6.106 Similarly, the majority of foraging resources offering significant potential for Badger are likely limited to the field margins, hedgerows, tree-lines and woodlands which will be retained along with associated buffers such that they will remain unaffected during the Construction Phase. Internal areas within the arable fields are already subject to periodic vegetation loss and disturbance as part of arable cropping such that the magnitude of impact on Badger resources as a result of temporary construction activities would be **negligible**, which is considered **not significant**. Accordingly, **no significant adverse impacts** on Badgers are anticipated in relation to direct pathways as a result of the Construction Phase.

##### *Indirect Effects*

- 7.6.107 Nonetheless, physical construction activities have potential to result in harm to individual Badgers that may wander onto the Site, including through killing or injury. Embedded mitigation includes measures to safeguard Badgers. Accordingly, following the implementation of the embedded mitigation (including construction safeguards and suitable fencing design), the magnitude of impact on individual Badgers would be negligible, which is considered **not significant**. As such, **no significant adverse effects** are anticipated in regard to individual Badgers as a result of the Construction Phase of the Scheme.

#### Operational Phase Impacts on Badger

##### *Direct and Indirect Effects*

- 7.6.108 A small number of Badger setts and activity are present at the Site, which are therefore considered to be of significance at the **Site level** (sensitivity). Specific details relating to the locations of Badger setts located within the Study Area can be located within **Volume III, Appendix 7.2**. Existing Badger setts will be fully retained and minimum 30m development exclusion buffers maintained as part of the embedded mitigation for the Scheme.
- 7.6.109 Further, existing mature vegetated habitats such as hedgerows, woodland and tree lines will be retained with suitable buffers, whilst stable grassland habitats will be created and maintained within the Solar PV Site throughout the Operational Phase of the Scheme, representing increased potential foraging opportunities across the Site throughout that time (representing **significant positive effects**). New boundary fencing has potential to obstruct access to foraging areas and/or limit connectivity across the Site for Badger, albeit this would largely be in respect of internal field areas (currently providing limited foraging value) with the majority of boundary corridors and features such as woodlands and hedgerows retained outside of fenced areas and therefore continuing to be available for use. In the absence of additional mitigation, the magnitude of impacts on Badger due to fencing would be **negligible**, which is **not significant**. Accordingly, **no significant adverse impacts** on Badgers are anticipated in relation to potential exclusion from foraging areas as a result of the Operational



Phase.

#### Decommissioning Phase Impacts on Badger

##### *Direct Effects*

- 7.6.110 A small number of Badger setts and activity are present at the Site, which are therefore considered to be of significance at the Site level (sensitivity). Specific details relating to the locations of Badger setts within the Study Area can be located within **Volume III, Appendix 7.2**. Existing Badger setts will be fully retained and minimum 30m development exclusion buffers maintained as part of the embedded mitigation for the Scheme.
- 7.6.111 In line with consideration in regard to construction impacts, the majority of foraging resources offering significant potential for Badger are likely limited to the field margins, hedgerows, tree-lines and woodlands which will be retained along with associated buffers such that they will remain unaffected during the Decommissioning Phase. Decommissioning activities will be focussed on removal of infrastructure and reversion to agricultural uses in line with the current baseline. Accordingly, no direct loss of current habitats or importance to Badger is anticipated, albeit necessary loss of grassland areas (created and retained throughout the Operational Phase) would occur, potentially representing an adverse impact on Badgers at the time. However, such habitats would only have been brought about on a temporary basis as a result of the Scheme and therefore the overall magnitude of impacts arising from habitat loss as a result of Decommissioning is considered negligible, which is **not significant**. Accordingly, **no significant adverse impacts** on Badgers in terms of habitat loss are anticipated in relation to habitat loss as a result of the Decommissioning Phase.

##### *Indirect Effects*

- 7.6.112 Nonetheless, in line with construction activities, physical works forming part of the Decommissioning Phase have potential to result in harm to individual Badgers that may wander onto the Site during the works, including through killing or injury. Embedded mitigation includes measures to safeguard Badgers. Accordingly, following the implementation of the embedded mitigation (including construction safeguards and suitable fencing design included within the oDEMP), the magnitude of impact on individual Badgers would be negligible, which is considered **not significant**. As such, **no significant adverse effects** are anticipated in regard to In the absence of additional mitigation.

#### Impacts on Otter and Water Vole

##### *Direct and Indirect Effects*

- 7.6.113 The Site does not contain any watercourses or connected waterbodies that could provide potential opportunities to support Otter or Water Vole, and no suitable connective habitats are located within the immediate vicinity of the Site. Accordingly, on the basis of the survey information, it is reasonably considered that Otter and Water Vole are absent from the Site and immediately adjacent areas.
- 7.6.114 As such **no significant adverse effects** in regard to Otter or Water Vole are anticipated as a



result of the Construction, Operational or Decommissioning Phases of the Scheme.

#### Construction Phase Impacts on Other Mammals – Brown Hare and Hedgehog

##### *Direct and Indirect Effects*

- 7.6.115 The Site provides suitable habitat for a range of small mammal species including priority species Brown Hare and Hedgehog which are considered likely present, and accordingly attributed a significance at the **Site level** (sensitivity).
- 7.6.116 The construction activities will result in disturbance to habitats and potential for killing or injury of individual mammals (including temporary loss of habitats), albeit this would not be anticipated to be significantly greater than the existing baseline position as a result of current agricultural activities such as ploughing and crop harvesting, whilst habitats offering greatest cover and refuge such as hedgerows and woodlands will remain undisturbed with substantial buffers. Internal areas within the arable fields are already subject to periodic vegetation loss and disturbance as part of arable cropping such that the magnitude of impact on Other Mammals as a result of temporary construction activities would be **negligible**, which is considered **not significant**. Accordingly, **no significant adverse impacts** on Other Mammals are anticipated as a result of the Construction Phase.

#### Operational Phase Impacts on Other Mammals – Brown Hare and Hedgehog

##### *Direct and Indirect Effects*

- 7.6.117 Existing mature vegetated habitats such as hedgerows, woodland and tree lines provide cover and foraging resources for other mammals. These habitats will be retained with suitable buffers, whilst stable grassland habitats will be created and maintained within the Solar PV Site throughout the Operational Phase of the Scheme, representing increased potential foraging opportunities across the Site throughout that time (representing **significant positive effects**). The new boundary fencing proposed as part of the Scheme has potential to obstruct access to foraging areas and/or limit connectivity across the Site for other mammals, albeit this would largely be in respect of internal field areas (currently providing limited foraging value) with the majority of boundary corridors and features such as woodlands and hedgerows retained outside of fenced areas and therefore continuing to be available for use. Further, embedded mitigation includes suitable design of fencing to allow permeability, including mammal gates where appropriate. In the absence of additional mitigation, impacts on other mammals due to fencing would therefore be **negligible** which is considered **not significant**. Accordingly, **no significant adverse impacts** on other mammals are anticipated in relation to potential exclusion from foraging areas as a result of the Operational Phase.

#### Decommissioning Phase Impacts on Other Mammals – Brown Hare and Hedgehog

##### *Direct and Indirect Effects*

- 7.6.118 In line with consideration in regard to construction impacts, the habitats offering greatest potential cover and foraging resources for other mammal species are likely focussed on the field margins, hedgerows, tree-lines and woodlands which will be retained along with associated buffers such that they will remain unaffected during the Decommissioning Phase. Decommissioning activities will be focussed on removal of infrastructure and reversion to agricultural uses in line with the current baseline. Accordingly, no direct loss of current habitats or importance to other mammals is anticipated, albeit necessary loss of grassland areas (created and retained throughout the Operational Phase) would occur, potentially representing



an **adverse impact** on mammal species at the time. However, such habitats would only have been brought about on a temporary basis as a result of the Scheme and therefore the overall magnitude of impacts arising from habitat loss as a result of Decommissioning is **negligible**, which is considered **not significant**. Accordingly, **no significant adverse impacts** on Badgers in terms of habitat loss are anticipated in relation to habitat loss as a result of the Decommissioning Phase.

#### Construction Phase Impacts on Breeding Birds

##### *Direct and Indirect Effects*

- 7.6.119 The assemblage of breeding birds (including ground nesting species) recorded within the Study Area is of significance considered to be at the **Site-Regional level** (sensitivity). Potential effects on breeding birds (including ground nesting species) during the Construction Phase relate to a direct loss of active nests and/or potential disturbance events, resulting in a direct effect on local populations and also potentially constituting an offence under the Wildlife and Countryside Act 1981 (as amended), which affords protection to wild birds and their eggs. Measures set out within stated embedded mitigation include safeguards (timing of vegetation clearance and/or nesting bird checks) in order to safeguard nesting birds and avoid a potential offence, following which, the magnitude of impact on bird populations would be **negligible**, which is considered **not significant**. Accordingly, **no significant adverse effects** are anticipated in regard to bird species (including ground nesting species) as a result of the Construction Phase of the Scheme.

#### Operational Phase Impacts on Breeding Birds

##### *Direct and Indirect Effects*

- 7.6.120 Ground nesting birds (Skylark and Curlew). Of the ground nesting species recorded within the Study Area, Eurasian Curlew and Eurasian Skylark require clear site lines to nest locations within open-structured vegetation, including within arable landscapes. In the absence of additional mitigation, the Scheme will result in the loss of open habitats with clear site lines, due to the inclusion of the PV panels. Embedded mitigation includes the provision of new open grassland habitat areas. Nonetheless, in the absence of additional mitigation, the Scheme would likely result in a reduction in the carrying capacity of habitats for these priority species and the magnitude of impact would be **minor to major**, which is **significant**. Accordingly, in the absence of additional mitigation, the Scheme has potential to result in **significant adverse effects** on breeding Eurasian Skylark and Eurasian Curlew during the Operational Phase of the Scheme.
- 7.6.121 Breeding birds (other species). The majority of breeding birds recorded within the Study Area are generalist species (species that make use of a wide variety of habitats and food sources), which will likely continue to utilise the retained boundary habitats and associated buffers in the long term, whilst disturbance events across the Site would likely be commensurate with, or reduced in relation to the existing agricultural management activities. Accordingly, **no significant adverse effects** are anticipated on other breeding bird species as a result of operational activities.

#### Decommissioning Phase Impacts on Breeding Birds

- 7.6.122 In line with the Construction Phase, potential effects on breeding birds (including ground nesting species) during the Decommissioning Phase relate to a direct loss of active nests and/or potential disturbance events, resulting in a direct effect on local populations and also



potentially constituting an offence under the Wildlife and Countryside Act 1981 (as amended), which affords protection to wild birds and their eggs. Measures set out within stated embedded mitigation include safeguards (timing of vegetation clearance and/or nesting bird checks) in order to safeguard nesting birds and avoid a potential offence, following which, the magnitude of impact on bird populations would be **negligible**, which is considered **not significant**. Accordingly, **no significant adverse effects** are anticipated in regard to bird species (including ground nesting species) as a result of the Decommissioning Phase of the Scheme.

#### Impacts on Wintering Birds

- 7.6.123 Wintering bird surveys are ongoing and remain to be completed at the time of writing due to the relevant seasonal requirements and as such, insufficient information is currently available in regard to wintering birds to confirm any likelihood of significant effects.
- 7.6.124 Nonetheless, on the basis of initial information, following the embedded mitigation it is anticipated that the magnitude of impact on wintering bird populations are anticipated to be **negligible**, which is considered **not significant**, such that **no adverse significant effects** are anticipated. However, full consideration in regard to this group will be set out within the ES, including consideration of the final wintering bird survey results.

#### Reptiles

- 7.6.125 Habitats providing reptile suitable opportunities are present within the Study Area, particularly in the form of existing field margins dominated by rough grassland. Specific reptile surveys are currently programmed to be undertaken at the Study Area in 2025 in order to confirm the presence or likely absence of common reptiles, the results of which will inform the ES in regard to the Scheme. Prior to the completion of these surveys, **insufficient information** is currently available to fully assess the likely impacts of the Scheme on this group.
- 7.6.126 Nonetheless, in the absence of mitigation, should reptiles be present, the Scheme could result in the short-term loss of habitat and potential killing or injury of individuals which would likely represent a **potentially significant adverse effect** during the Construction and Decommissioning Phases.
- 7.6.127 In regard to the Operational Phase, ongoing grassland habitats will be created and maintained around the Solar PV Arrays throughout the Operational Phase of the Scheme which would likely provide increased habitat opportunities for reptiles should this group be present, which would therefore represent **potentially significant positive effect**.

#### Construction Phase Impacts on Amphibians (Great Crested Newt)

##### *Direct and Indirect Effects*

- 7.6.128 The Study Area contains a number of ponds providing apparently suitable breeding opportunities for amphibians such as Great Crested Newt (GCN), whilst a number of further ponds are present within the surrounding offsite areas within 500m of the Site. In addition, potentially suitable terrestrial habitats are present throughout the Site, albeit the vast majority of internal areas remain under intensive arable crop production which are subject to regular disturbance and provide at best sub-optimal terrestrial habitats.
- 7.6.129 The existing ponds will be retained, with surrounding buffers maintained as part of the Scheme's embedded mitigation. Terrestrial habitats offering raised potential for amphibians within the Site are likely limited to the field margins, hedgerows, tree-lines and woodlands



which will be retained along with associated buffers such that they will remain largely unaffected during the Construction Phase.

7.6.130 Specific surveys of ponds within the Site and associated 250m radius during 2024 recorded the likely absence of GCN Accordingly, no breeding habitats or terrestrial habitats used by GNC within 250m of any breeding ponds will be affected by construction activities.

7.6.131 Guidance [Ref 7-9] set out within Natural England's Method Statement template, to be used when applying for a GCN development licence, states that surveys of ponds located 250m to 500m from the Site boundary are only required when all of the following conditions are met:

- Maps, aerial photos, walk-over surveys or other data indicate that the pond(s) has potential to support a large GCN population
- The footprint contains particularly favourable habitat, especially if it constitutes the majority available locally
- The Scheme would have a substantial negative effect on that habitat; and
- There is an absence of dispersal barriers.

7.6.132 There is no evidence that offsite ponds within 250-500m of the Site would have particular potential to support large populations of GCN, albeit this potential cannot be ruled out on the basis of the current information. As set out above, the Solar PV Site is dominated almost exclusively by intensively managed arable land (representing suboptimal habitat), with more permanently vegetated habitats such as woodlands, trees and hedgerows retained with appropriate buffers as part of the embedded mitigation such that they are located outside of the construction footprint. Construction activities will result in temporary disturbance to arable areas, which could result in harm to individual GCN should they be present, albeit this would not be anticipated to be significantly greater than the existing baseline position as a result of current agricultural activities such as ploughing and crop harvesting. As such, should GCN populations be present within ponds located 250m-500m from the Site, the magnitude of impact on Great Crested Newt as a result of construction activities would be **negligible**, which is considered **not significant**. Accordingly, **no significant adverse impacts** on Great Crested Newt are anticipated in relation to direct pathways as a result of the Construction Phase.

#### Operational Phase Impacts on Amphibians (Great Crested Newt)

##### *Direct and Indirect Effects*

7.6.133 As set out above, specific survey work of ponds within 250m of the Site boundary indicates the likely absence of this species within this radius, albeit potential exists for populations to be centred on ponds within 250m to 500m of the Site. In line with the above considerations, given the distance and separation of these ponds, the Site is unlikely to represent an important resource used by GCN. Further, existing mature vegetated habitats such as hedgerows, woodland and tree lines that provide potential cover and foraging resources for amphibians such as GCN (should this species be present) will be retained with associated buffers of vegetation such that they will continue to be available for use. During the Operational Phase, internal field areas will be subject to reduced levels of ground disturbance in comparison with current intensive arable management and development of grassland, representing increased potential foraging opportunities across the Site throughout that time should amphibians make



use of these areas (potentially representing **significant positive effects**).

#### Decommissioning Phase Impacts on Amphibians (Great Crested Newt)

##### *Direct and Indirect Effects*

- 7.6.134 Decommissioning activities and associated potential for impacts on amphibians (GCN) will be similar to the Construction Phase (albeit the Construction Phase represents the worst-case scenario) should the population remain absent from ponds within 250m of the Site on the basis of the current populations. Given the timescales prior to the progression of decommissioning activities, it is possible that the status of GCN could change, with any accurate assessment of effects necessarily depend on the population status at the time, which would likely need to be updated through up to date survey work, to inform the Decommissioning Phase.
- 7.6.135 However, on the basis of the current information, the magnitude of impact on GCN as a result of **temporary** decommissioning activities would be **negligible**, which is considered **not significant**. Accordingly, **no significant adverse impacts** on GCN are anticipated in relation to direct pathways as a result of the Decommissioning Phase

## 7.7 Additional Mitigation and Enhancements

- 7.7.1 Where appropriate, additional mitigation measures not included within the stated embedded mitigation above are set out below. In addition, where further enhancement measures are proposed in relation to ecological receptors, these are also set out below.

### **Additional Mitigation**

#### Ecological Designations and Habitats

- 7.7.2 In order to ensure consistency across the PEIR, all committed measures are considered above within embedded mitigation, accordingly, no further additional mitigation is proposed in respect of ecological designations or habitats.

#### Fauna

##### *Badger*

##### Construction and Decommissioning Phases

- 7.7.3 Badgers are dynamic animals and levels of Badger activity can rapidly change at a site, with new setts being created at any time. Given the known presence of Badger setts in the area it is proposed that updated Badger survey work is carried out prior to commencement of the Construction Phase in order to confirm the current status of Badgers at the Site and inform any detailed mitigation (including the need for works to be undertaken under licence should any active setts be affected at that time).
- 7.7.4 Should additional Badger setts be discovered in locations which cannot be accommodated within the Scheme design (including where new setts are discovered in locations which disrupt or prevent construction and decommissioning activities), it is anticipated that such setts would need to be closed under licence, with suitable mitigation measures/compensation provided in



line with relevant licence requirements.

### *Reptiles*

#### Construction and Decommissioning Phases

- 7.7.5 Should survey work confirm the presence of reptile species at the Site, measures will be implemented to avoid killing or injury of reptile species during the Construction and Decommissioning Phases. Precise details of mitigation measures will be dependent on the numbers and locations of reptiles within the Site, and accordingly, will be drawn up following the completion of further reptile surveys, albeit given the nature and extent of arable habitats, this group is likely to be absent across much of the Site.
- 7.7.6 Accordingly, given the limited extents of suitable habitat to be temporarily affected by the Scheme, it is anticipated that mitigation would centre on the removal of suitable terrestrial habitats following precautionary methods of working, including the ecologically supervised, phased clearance of habitat, preceded by a toolbox talk. Where appropriate, a reptile mitigation strategy will be included within the oCEMP and oDEMP submitted to accompany the ES stage.

### **Enhancement**

- 7.7.7 The Scheme will provide large areas of additional new grassland habitat which will include suitable reptile habitats within the buffers and enhancement areas along with the wider Solar PV Site around individual panels which would provide enhanced opportunities for reptiles in comparison with the existing intensive arable habitats, should this group be present and/or colonise the Site in the future. It is anticipated that these opportunities would be available for the duration of the Scheme's lifetime.

### Amphibians (Great Crested Newt)

#### *Construction and Decommissioning Phases*

- 7.7.8 On the basis of the current information, GCN appears unlikely to be present within the Site or affected by the proposed Scheme and accordingly, no mitigation measures are proposed in regard to this species, albeit this position will be further reviewed in advance of the submission of the ES in line with the above considerations, including in relation to potential presence within ponds located 250m to 500m from the Site boundary. Where necessary a precautionary mitigation strategy will be included within the oCEMP and oDEMP submitted to accompany the ES stage in order to safeguard amphibians.

### Ground Nesting Birds (Skylark and Curlew)

#### *Operational Phase*

- 7.7.9 Discussions are ongoing with landowners and Natural England on the extent of land required for the creation of additional habitat for ground nesting birds, to ensure that the loss of habitat is mitigated through the final design of the Scheme. Whilst these discussions are ongoing, and the exact quantum of habitat provided is subject to direction from Natural England, the Applicant is committed to providing sufficient habitat for ground nesting birds to ensure there



are **no significant adverse** residual effects.

## 7.8 Residual Effects

7.8.1 Following the implementation of the above mitigation and enhancement measures as part of the proposed Scheme, residual effects in relation to individual ecological receptors are set out below:

### Statutory Ecological Designations of International Importance

7.8.2 (Breckland SPA, Norfolk Valley Fens SAC, Breckland SAC, Roydon Common Ramsar, Roydon Common & Dersingham Bog SAC, Dersingham Bog Ramsar, River Wensum SAC, The Wash SPA & Ramsar, and The Wash & North Norfolk Coast SAC) Following the implementation of the additional mitigation measures and enhancements set out above, no significant adverse effects are anticipated on any Statutory Ecological Designations of International Importance (specifically including those listed above, which are scoped into consideration) as a result of the Construction, Operational or Decommissioning Phases of the Scheme.

### Statutory Ecological Designation of National Importance

7.8.3 Following the implementation of the additional mitigation measures and enhancements set out above, no significant adverse effects are anticipated on any Statutory Ecological Designations of National Importance as a result of the Construction, Operational or Decommissioning Phases of the Scheme.

### Non-Statutory Ecological Designations

7.8.4 Following the implementation of the additional mitigation measures and enhancements set out above, no significant adverse effects are anticipated on any of the identified Non-Statutory Ecological Designations within the Study Area as a result of the Construction, Operational or Decommissioning Phases of the Scheme.

### Habitats

7.8.5 As above, all committed measures including habitat creation in respect of trees, hedgerows and tree lines are considered above within embedded mitigation, such that, no further additional mitigation is proposed in respect of habitats. It is currently anticipated that the proposed Scheme will result in not significant, beneficial effects on habitats within the Site, albeit this position will be further confirmed and the final extent and significance of effect will be further assessed as part of the ES in order to reflect the final detailed Scheme design.

### Fauna

#### Bats – Roosting

7.8.6 On the basis of the above considerations, following the implementation of the proposed additional mitigation measures set out above, **no significant adverse effects** are anticipated



on bat roosts and potential bat roosting habitats identified within the Study Area.

#### Bats – Foraging and Commuting

- 7.8.7 Following the implementation of the proposed mitigation and enhancement measures set out above, **no significant adverse effects** are anticipated on the bat assemblage using the Site for commuting and foraging.

#### Badger

- 7.8.8 Following the implementation of the proposed mitigation and enhancement measures set out above, **no significant adverse effects** are anticipated on Badgers at the Site as a result of the Construction, Operational or Decommissioning Phases of the Scheme.

#### Other Mammals

- 7.8.9 Following the implementation of the proposed mitigation and enhancement measures **no significant adverse effects** are anticipated on other mammal species at the Site as a result of the Construction, Operational or Decommissioning Phases of the Scheme.

#### Birds

##### *Breeding Birds (Ground Nesting Species: Skylark and Curlew)*

- 7.8.10 In line with the above considerations, specific details and extent of proposed mitigation measures in regard to ground nesting birds is ongoing in discussion with the relevant landowners and Natural England. The Applicant is committed to providing sufficient habitat for ground nesting birds, following which **no significant adverse effects** on breeding birds are anticipated.

##### Breeding Birds (Other Species)

- 7.8.11 In line with the consideration set out above, following the implementation of the proposed mitigation and enhancement measures, the proposed Scheme is anticipated to result in **significant beneficial effects** on other breeding bird species during the Operational Phase due to the provision of new habitats and associated long term management.
- 7.8.12 Following the implementation of mitigation measures including timing of vegetation clearance and associated safeguards, **no significant adverse effects** on breeding birds are anticipated as a result of the Construction or Decommissioning Phases of the Scheme.

##### Wintering Birds

- 7.8.13 In line with the above information, wintering bird surveys are ongoing and remain to be completed due to the relevant seasonal requirements and as such, insufficient information is currently available in regard to wintering birds to confirm any likelihood of significant effects. However full consideration in regard to this group will be set out within the ES, including consideration of the final wintering bird survey results.
- 7.8.14 Nonetheless, based on the available information to date, the assemblage of overwintering birds recorded within the Study Area would likely continue to make use of the Site under the proposed scheme, whilst a number of species would likely benefit from improved foraging opportunities resulting from the conversion of arable fields to grassland, such that **no significant adverse effects** are currently anticipated on wintering birds as a result of the



proposed scheme.

### Reptiles

- 7.8.15 In line with the above information, specific reptile surveys are currently programmed to be undertaken at the Study Area in 2025 in order to confirm the presence or likely absence of common reptiles within suitable habitats at the Site, the results of which will inform the ES in regard to the Scheme. Accordingly, at this stage, insufficient information is available in order to confirm the likelihood of significant effects on this group, which will be subject to full assessment within the ES. Nonetheless, should survey work confirm the presence of reptile species, following the implementation of the proposed mitigation and enhancement measures (in particular the implementation of mitigation to prevent harm to individual reptiles within suitable habitats) **no significant adverse effects** are anticipated on reptile species during the Construction, Operational and Decommissioning Phases.
- 7.8.16 Following the creation of new habitats and associated long-term management for wildlife benefit in line with the proposed mitigation and enhancements set out above, should reptiles be present within the Site or surrounding areas, it is currently anticipated that the proposed Scheme will result in **significant, beneficial effects** on reptile populations.

### Amphibians (Great Crested Newt)

- 7.8.17 As set out above, on the basis of the current information, Great Crested Newt is unlikely to be present within the Site and therefore affected by the proposals, such that **no significant adverse effects** are anticipated on amphibians. However, further consideration is ongoing including in discussion with stakeholders and where necessary further survey work will be undertaken of offsite ponds within 250-500m of the Site to confirm the position, following which updated consideration and assessment will be provided within the ES.

## 7.9 Cumulative Effects

- 7.9.1 Overall consideration of cumulative effects in relation to the proposed Scheme in combination with other schemes is set out within **Volume I, Chapter 16: In-Combination Effects**, of the PEIR, including reference to the individual schemes considered as part of the assessment. Specific consideration in relation to potential in-combination effects in relation to ecological receptors is set out below, following the implementation of the mitigation measures and enhancements set out above.

### High Grove Solar

- 7.9.2 Natural England has identified a number of other plans or projects to be considered, including High Grove Solar Farm, terrestrial elements of the Norfolk Boreas Offshore Wind Farm, and terrestrial elements of the Norfolk Vanguard Offshore Wind Farm, which will therefore be considered as part of the ES.
- 7.9.3 In particular, it is understood at the time of writing part of High Grove Solar Farm is located within the Site, specifically an area of the cable corridor of High Grove Solar Farm, such that potential exists for both developments to impact the same populations and/or individuals in regard to faunal species.
- 7.9.4 The Drovers design team has committed to ongoing discussions with High Grove Solar Farm throughout the development planning process in order to enable consideration of individual



scheme details to be considered thoroughly as designs develop and further survey information becomes available and will therefore be subject to further detail at the ES stage.

#### Norfolk Vanguard Offshore Wind Farm – East and West terrestrial elements

- 7.9.5 Norfolk Vanguard Offshore Wind Farm – East and West terrestrial elements is located 6km from the Site. Given the nature of the proposals and the lack of significant effects of the Scheme and any pathways forming potential links between the two schemes, no potential exists for significant cumulative effects.

#### Norfolk Vanguard Offshore Wind Farm

- 7.9.6 Norfolk Vanguard Offshore Wind Farm is similarly located 6km from the Site. Given the nature of the proposals and the lack of significant effects of the Scheme and any pathways forming potential links between the two schemes, no potential exists for significant cumulative effects.

#### Indigo Corporation Limited – 400,000 bird broiler farm (Scoping Opinion)

- 7.9.7 Based on the scoping opinion information, no ecological information appears to have been submitted with the proposal. However the consultation response received from Place Services identifies potential for significant adverse effects on designations (Breckland SPA, Breckland Forest SSSI, Breckland Farmland SSS and other designations specifically in regard to air and water pollution from increased ammonia levels. The proposal is located 1km from the Site. Information at **Volume I, Chapter 15: Other Environmental Matters**, confirms that air quality effects as a result of the Scheme are not likely to be significant. Further, Breckland SPA and Breckland Forest SSSI are specifically considered, noting that these (and other nearby designations) are not located within approximately 50m of the Site or within approximately 200m of any roads currently considered for construction traffic, such that no potential exists for in combination effects in relation to air quality with the Scheme. Further, no hydrological link exists between the Site and the relevant designations or Indigo Corporation Limited site, such that cumulative effects in relation to hydrology can be ruled out. On this basis no cumulative effects are anticipated in relation to the proposals.

#### Breckland Local Plan Swaffham Housing Allocations 4, 6 and 7

- 7.9.8 Breckland Local Plan Swaffham Housing Allocations 4, 6 and 7 are located 4km from the Site. These allocations are sufficiently distant from the Site that given the nature of the proposals, they are unlikely to interact directly with the Scheme and no pathways appear to exist by which in significant cumulative effects in relation to ecology receptors could occur.

#### Other identified proposals

- 7.9.9 Other identified developments are located more distantly from the Site (over 7km) and are therefore unlikely to result in effects on the same individuals or populations in respect of the majority of habitats and faunal species, with the exception of more mobile species such as birds.
- 7.9.10 Further, where no adverse effects (or beneficial effects) on individual receptors are anticipated as a result of the Scheme, it is clear that no potential for these to combine with other



developments to result in significant cumulative adverse effects.

### Ecological Designations

- 7.9.11 Following the above information and implementation of the mitigation and enhancement measures proposed, no adverse effects are anticipated on any identified ecological designations as a result of the Construction, Operational or Decommissioning Phase of the Scheme. Accordingly, no potential cumulative adverse effects on ecological designations are anticipated in combination with any of the identified offsite developments.

### Habitats

- 7.9.12 In line with the above information, under the proposed Scheme, following the implementation of the proposed mitigation and enhancement measures, ecologically valuable habitats will be entirely retained and protected with buffers maintained throughout the Construction, Operational and Decommissioning Phases, whilst new habitats will be provided such that significant beneficial effects on habitats are anticipated (including to be evidenced through BNG assessment using the Statutory Biodiversity Metric prior to submission of the ES). Accordingly, no potential cumulative effects on ecological habitats are anticipated in combination with any of the identified offsite developments.

### Fauna

- 7.9.13 As set out above, following the implementation of the proposed mitigation and enhancement measures, no long term residual adverse effects are anticipated as a result of the Scheme in respect of Bats, Badger, other mammals (Brown Hare and Hedgehog), and amphibians (Great Crested Newt), whilst significant beneficial effects are anticipated in respect of breeding birds (species other than ground nesting species requiring open sight lines), such that no potential exists for cumulative effects to occur in relation to any of these species in combination with any of the identified offsite developments.
- 7.9.14 In line with the above considerations, specific details and extent of proposed mitigation measures in regard to ground nesting birds (Skylark and Curlew) remain in discussion with the relevant landowners and will be subject to assessment at the ES stage once details are available, whilst further specific survey information remains to be completed in regard to reptiles and wintering birds. Accordingly, insufficient information is available at this stage in order to confirm the absence of cumulative effects in regard to these species and full assessment will be included within the ES.

## 7.10 Assumptions and Limitations

- 7.10.1 Assumptions and limitations in regard to the ecological survey and assessment work undertaken to inform the PEIR are identified at section 7.5., above. As set out, a number of surveys remain ongoing and accordingly, final information is not yet available and will be fully assessed within the ES.
- 7.10.2 The preliminary assessment of effects set out above is based on the boundary and context set out within **Volume I, Chapter 3: Site Boundary** and **Volume I, Chapter 5: Scheme Description**, of the PEIR Chapter.



**Table 7.11: Ecology and Biodiversity Significance of Effects**

Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
<b>Construction Phase</b>								
Breckland SPA	Construction activities (Direct Effects)	Identification and maintenance of designated construction and material transit routes avoiding Breckland SPA (ensured through CoCEMP)	None	International	Negligible	Not Significant	None	Not Significant
Breckland SPA	Construction activities (Functionally Linked Land)	None	None	International	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Breckland SPA	Construction activities on site (Air Quality)	Standard best practice construction measures to be detailed within the oCEMP.	None	International	Negligible	Not Significant	None	Not Significant
Norfolk Valley Fens SAC	Construction activities (direct effects)	N/A	None	International	Negligible	Not Significant	None	Not Significant
Norfolk Valley Fens SAC	Construction activities (indirect effects)	N/A	None	International	Negligible	Not Significant	None	Not Significant
Breckland SAC	Construction activities (direct effects)	N/A	None	International	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Breckland SAC	Construction activities (indirect effects)	N/A	None	International	Negligible	Not Significant	None	Not Significant
Other International Designation within 25km	Construction activities (direct effects)	N/A	None	International	Negligible	Not Significant	None	Not Significant
Other International Designation within 25km	Construction activities (indirect effects)	N/A	None	International	Negligible	Not Significant	None	Not Significant
River Nar SSSI	Construction activities (Direct Effect)	N/A	None	National	Negligible	Not Significant	None	Not Significant
River Nar SSSI	Construction activities on site (Air Quality)	N/A	None	National	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
River Nar SSSI	Construction activities (Indirect effects – hydrological pathways)	Proposed development design including maintenance of buffer zones. Pollution prevention measures implemented through CEMP	None	National	Negligible	Not Significant	None	Not Significant
Breckland SSSI Forest	Construction activities (Direct Effect)	N/A	None	National	Negligible	Not Significant	None	Not Significant
Breckland SSSI Forest	Construction activities on site (Air Quality)	N/A	None	National	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Breckland Forest SSSI	Construction activities (Indirect effects – hydrological pathways)	Proposed development design including maintenance of buffer zones. Pollution prevention measures implemented through CEMP	None	National	Negligible	Not Significant	None	Not Significant
Other Statutory Designations within 5km	Construction activities on site (Direct Effects)	Proposed development design, physical separation from designations.	None	National	N/A	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Other Statutory Designations within 5km	Construction activities on site (Indirect Effects)	Proposed development design, physical separation from designations.	None	National	N/A	Not Significant	None	Not Significant
River Road RNRs	Construction activities (Direct Effects)	Proposed development design including maintenance of buffer zones. Protection and pollution prevention measures implemented through CEMP	None	Local	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
River Road RNRs	Construction activities (Indirect Effects)	Proposed development design including maintenance of buffer zones. Protection and pollution prevention measures implemented through CEMP	None	Local	Negligible	Not Significant	None	Not Significant
Other non-statutory Designation; Walton Road RNR, Priory Road RNR, & Lynn Road Disused Railway	Construction activities (Direct Effects)	Proposed development design including maintenance of buffer zones,	None	Local	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Other non-statutory Designation;  Walton Road RNR, Priors Road RNR, & Lynn Road Disused Railway	Construction activities (Indirect Effects)	Proposed development design including maintenance of buffer zones,	None	Local	Negligible	Not Significant	None	Not Significant
Habitats (Trees)	Construction activities (Direct Effects)	Retention of trees (including veteran trees), and maintenance of buffer zones. Pollution prevention measures implemented through CEMP	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Habitats (Trees)	Construction activities (Indirect Effects)	Retention of trees (including veteran trees), and maintenance of buffer zones. Pollution prevention measures implemented through CEMP	None	Site	Negligible	Not Significant	None	Not Significant
Habitats (Woodland)	Construction activities (Direct Effects)	Retention of woodland habitats outside of solar areas and maintenance of buffer zones. Pollution prevention	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		measures implemented through CEMP						
Habitats (Woodland)	Construction activities (Indirect Effects)	Retention of woodland habitats outside of solar areas and maintenance of buffer zones. Pollution prevention measures implemented through CEMP	None	Site	Negligible	Not Significant	None	Not Significant
Habitats (Hedgerows and Tree Lines)	Construction activities (Direct Effects)	Retention of hedgerows and tree lines and maintenance	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		Retention of buffer zones. Pollution prevention measures implemented through CEMP						
Habitats (Hedgerows and Tree Lines)	Construction activities (Indirect Effects)	Retention of hedgerows and tree lines and maintenance of buffer zones. Pollution prevention measures implemented through CEMP	None	Site	Negligible	Not Significant	None	Not Significant
Habitats (Ponds)	Construction activities	Retention of ponds and associated	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
	(Direct Effects)	habitats and maintenance of buffer zones. Pollution prevention measures implemented through CEMP						
Habitats (Ponds)	Construction activities (Indirect Effects)	Retention of ponds and associated habitats and maintenance of buffer zones. Pollution prevention measures implemented through CEMP	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Invasive Non-native Species	Construction activities : risk of spread. (Direct and Indirect Effects)	Locations of INNS captured by retention buffers for habitats of raised ecological value (hedgerows , trees (including veteran trees), woodlands, ponds). Maintenance of buffer zones. Measures to prevent spread to be detailed within	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		CEMP / LEMP.						
Roosting Bats	Construction activities (Direct Effects)	Retention of trees and maintenance of associated buffer zones.	None	Site	Negligible	Not Significant	None	Not Significant
Roosting Bats	Construction activities (Indirect Effects).	Retention of trees and maintenance of associated buffer zones. Control of construction lighting including within CEMP.	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Foraging/Commuting Bats	Construction activities (Direct Effects)	Retention of key vegetation including woodland, hedgerows, trees and maintenance of associated buffer zones. Protection measures implemented through CEMP, sensitive design and minimisation of decommissioning lighting	None	Site - Regional	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Foraging/Commuting Bats	Construction activities (Indirect Effects).	Retention of key vegetation including woodland, hedgerows, trees and maintenance of associated buffer zones. Protection measures implemented through CEMP, sensitive design and minimisation of decommissioning lighting	None	Site - Regional	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Badger	Construction activities (Direct Effects)	Retention of key vegetation, identification and protection of setts and associated buffer zones (30m around existing setts), Construction measures and safeguards implemented through CEMP.	None	Site	Negligible	Not Significant	Update Badger survey work to be undertaken prior to commencement to ensure any changes and/or new setts are identified. Should additional setts be discovered in locations of consequence to progression of construction activities, further	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
							specific mitigation to be designed accordingly, including implementation under licence if necessary.	
Badger	Construction activities (Indirect Effects).	Retention of key vegetation, identification and protection of setts and associated buffer zones (30m around existing setts), Construction measures and	None	Site	Negligible	Not Significant	Update Badger survey work to be undertaken prior to commencement to ensure any changes and/or new setts are identified. Should additional setts be	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		safeguards implemented through CEMP.					discovered in locations of consequence to progression of construction activities, further specific mitigation to be designed accordingly, including implementation under licence if necessary.	
Otter and Water Vole	Construction activities (Direct and Indirect)	Retention of key vegetation including ponds and ditches, and	None	N/A	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		maintenance of associated buffer zones.						
Other Mammals	Construction activities (Direct and Indirect)	Retention of key vegetation including woodland, hedgerows, trees and maintenance of associated buffer zones. Construction measures and safeguards implemented through CEMP	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Breeding Birds	Construction activities (Direct and Indirect)	Retention of key vegetation including woodland, hedgerows, trees and maintenance of associated buffer zones. Construction measures and safeguards implemented through CEMP including timing of works/vegetation clearance/nesting bird checks	None	Site - Regional	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		and/or ECoW attendance.						
Wintering Birds	Construction activities on site: Temporary loss of habitat, killing, injury or disturbance of individuals	Retention of key vegetation including woodland, hedgerows, trees and maintenance of associated buffer zones. Construction measures and safeguards implemented through CEMP including timing of works/veget	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		ation clearance/nesting bird checks and/or ECoW attendance.						
Reptiles	Construction activities on site: Temporary loss of habitat, killing, injury or disturbance of individuals (dependent on forthcoming survey results)	Scheme design retention of key vegetation, field margins and associated buffers.	Adverse Short Term	Site	Minor-Major	Significant Adverse	Construction measures and safeguards implemented through CEMP, including specific reptile mitigation strategy (if required post-survey results)	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Amphibians (Great Crested Newt)	Construction activities on site: Temporary loss of habitat, killing, injury or disturbance of individuals (unlikely based on current survey information albeit awaiting further confirmation in regard to ponds located 250-500m from the Site).	Retention of existing ponds with associated buffers.	None	N/A (based on current survey information)	Negligible	Not Significant	Construction measures and safeguards implemented through CEMP (if required).	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Operational Phase								
Breckland SPA	Operational activities	N/A	None	International	Negligible	Not Significant	None	Not Significant
Norfolk Valley Fens SAC	Operational activities	N/A	None	International	Negligible	Not Significant	None	Not Significant
Breckland SAC	Operational activities	N/A	None	International	Negligible	Not Significant	None	Not Significant
Other International Designation within 25km	Operational activities (direct effects)	N/A	None	International	Negligible	Not Significant	None	Not Significant
Other International Designation within 25km	Operational activities (indirect effects)	N/A	None	International	Negligible	Not Significant	None	Not Significant
River Nar SSSI	Operational activities	N/A	None	National	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Breckland Forest SSSI	Operational activities	N/A	None	National	Negligible	Not Significant	None	Not Significant
Other Statutory Designations within 5km	Operational activities on site (Direct Effects)	Proposed development design, physical separation from designations.	None	National	N/A	Not Significant	None	Not Significant
Other Statutory Designations within 5km	Operational activities on site (Indirect Effects)	Proposed development design, physical separation from designations.	None	National	N/A	Not Significant	None	Not Significant
River Road RNRs	Operational activities	N/A	None	National	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Other non-statutory Designation; Walton Road RNR, Priors Road RNR, & Lynn Road Disused Railway	Operational activities (Direct Effects)	Proposed development design including maintenance of buffer zones,	None	Local	Negligible	Not Significant	None	Not Significant
Other non-statutory Designation; Walton Road RNR, Priors Road RNR, & Lynn Road Disused Railway	Operational activities (Indirect Effects)	Proposed development design including maintenance of buffer zones,	None	Local	Negligible	Not Significant	None	Not Significant
Habitats (Trees)	Operational activities (Direct Effects)	Retention of trees (including veteran trees), and maintenance of buffer zones. Pollution	None	Site	Minor to Major	Not Significant Beneficial		Not Significant Beneficial



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		prevention measures implemented through CEMP. New Tree planting including as part of strengthening of key corridors and associated habitat management to be included within oLEMP.						
Habitats (Trees)	Operational activities	Retention of trees (including	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
	(Indirect Effects)	veteran trees), and maintenance of buffer zones. Pollution prevention measures implemented through CEMP						
Habitats (Woodland)	Operational activities (Direct Effects)	Retention of woodland habitats outside of solar areas and maintenance of buffer zones. Pollution prevention measures implemented	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		d through CEMP						
Habitats (Woodland)	Operational activities (Indirect Effects)	Retention of woodland habitats outside of solar areas and maintenance of buffer zones. Pollution prevention measures implemented through CEMP	None	Site	Negligible	Not Significant	None	Not Significant
Habitats (Hedgerows and Tree Lines)	Operational activities (Direct Effects)	Retention of hedgerows and tree lines and maintenance of buffer zones.	None	Site	Minor to Major	Not Significant Beneficial	None	Not Significant Beneficial



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		Pollution prevention measures implemented through CEMP. Additional planting to be detailed within oLEMP, to strengthen key corridors and associated habitat management.						
Habitats (Hedgerows and Tree Lines)	Operational activities (Indirect Effects)	Retention of hedgerows and tree lines and maintenance of buffer	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		zones. Pollution prevention measures implemented through CEMP						
Habitats (Ponds)	Operational activities (Direct Effects)	Retention of ponds and associated habitats and maintenance of buffer zones. Pollution prevention measures implemented through CEMP	None	Site	Negligible	Not Significant	None	Not Significant
Habitats (Ponds)	Operational activities	Retention of ponds and associated habitats and	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
	(Indirect Effects)	maintenance of buffer zones. Pollution prevention measures implemented through CEMP						
Invasive Non-native Species	Operational activities: risk of spread. (Direct and Indirect Effects)	Locations of INNS captured by retention buffers for habitats of raised ecological value (hedgerows, trees (including veteran trees), woodlands, ponds).	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		Maintenance of buffer zones. Measures to prevent spread to be detailed within CEMP / LEMP.						
Roosting Bats	Operation of solar scheme for power generation, grid connection and associated maintenance activities (Direct and Indirect Effects).	Retention of trees and maintenance of associated buffer zones. Sensitive Lighting Strategy.	None	N/A	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Foraging/Commuting Bats	Operational activities (Direct Effects)	Retention of key vegetation including woodland, hedgerows, trees and maintenance of associated buffer zones.	None	Site - Regional	Negligible	Not Significant	None	Not Significant
Foraging/Commuting Bats	Operational activities (Indirect Effects).	Retention of key vegetation including woodland, hedgerows, trees and maintenance of associated buffer zones. Detailed	None	Site - Regional	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		lighting design and avoidance of lighting within solar PS site areas.						
Badger	Operational activities (Direct and Indirect Effects).	Retention of key vegetation, identification and protection of setts and associated buffer zones (30m around existing setts), Appropriate fencing design and manageme	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		nt of new habitats.						
Otter and Water Vole	Operational activities (Direct and Indirect)	Retention of key vegetation including ponds and ditches, and maintenance of associated buffer zones.	None	N/A	Negligible	Not Significant	None	Not Significant
Other Mammals	Operational activities (Direct and Indirect)	Retention of key vegetation including woodland, hedgerows, trees and maintenance of associated buffer	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		zones. Construction measures and safeguards implemented through CEMP						
Breeding Birds: Ground (Skylark and Curlew)	Operation of solar scheme for power generation, grid connection and associated maintenance activities (loss of open habitats with long sight-lines for breeding). (Direct and	Currently in development, anticipated to include open grassland areas managed for ground nesting birds.	Adverse, Long term	Site Regional -	Minor to Major	Significant Adverse	Provision of suitable habitat within final Scheme design, in agreement with Natural England.	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
	Indirect effects)							
Breeding Birds (other species)	Operation of solar scheme for power generation, grid connection and associated maintenance activities.	Scheme design retention of key vegetation, field margins and associated buffers. Incorporation of new wildlife habitats within the Site, to be managed to maximise biodiversity with details set out in the LEMP.	None	Site	Negligible	Not Significant	New native planting including as part of strengthening of key corridors and grassland provision and associated habitat management.	Significant Beneficial



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Wintering Birds	Operational activities Temporary loss of habitat, killing, injury or disturbance of individuals	Retention of key vegetation including woodland, hedgerows, trees and maintenance of associated buffer zones. Construction measures and safeguards implemented through CEMP including timing of works/vegetation clearance/nesting bird checks	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		and/or ECoW attendance.						
Reptiles	Operational activities: New grassland habitats and associated ongoing management .	Scheme design retention of key vegetation, field margins and associated buffers. Suitable habitat management.	Beneficial Long Term	Site	Minor to Major	Significant Beneficial	None	Significant Beneficial
Amphibians (Great Crested Newt)	Operation of solar scheme for power generation, grid connection and associated	Retention of existing ponds with associated buffers, along with retention of terrestrial	None	N/A	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
	maintenance activities.	habitats of value (hedgerows, woodland, grassland margins) and incorporation of new grasslands.						
<b>Decommissioning Phase</b>								
Breckland SPA	Decommissioning activities (Direct Effects)	N/A	None	International (High)	Negligible	Not Significant	None	Not Significant
Breckland SPA	Decommissioning activities (air quality)	Identification and maintenance of designated construction and material	None	International (High)	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		transit routes avoiding Breckland SPA						
Norfolk Valley Fens SAC	Decommissioning activities (direct effects)	N/A	None	International (High)	Negligible	Not Significant	None	Not Significant
Norfolk Valley Fens SAC	Decommissioning activities (indirect effects)	N/A	None	International (High)	Negligible	Not Significant	None	Not Significant
Breckland SAC	Decommissioning activities (direct effects)	N/A	None	International (High)	Negligible	Not Significant	None	Not Significant
Breckland SAC	Decommissioning activities	N/A	None	International (High)	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
	(indirect effects)							
Other International Designation within 25km	Decommissioning activities (direct effects)	N/A	None	International	Negligible	Not Significant	None	Not Significant
Other International Designation within 25km	Decommissioning activities (indirect effects)	N/A	None	International	Negligible	Not Significant	None	Not Significant
River Nar SSSI	Decommissioning activities (Direct Effect)	N/A	None	National	Negligible	Not Significant	None	Not Significant
River Nar SSSI	Decommissioning activities on site (Air Quality)	N/A	None	National	Negligible	Not Significant	None	Not Significant
River Nar SSSI	Decommissioning activities (Indirect)	Proposed development design	None	National	Major	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
	effects – hydrological pathways)	including maintenance of buffer zones. Pollution prevention measures implemented through CEMP						
Breckland SSSI	Forest Decommissioning activities (Direct Effect)	N/A	None	National	Negligible	Not Significant	None	Not Significant
Breckland SSSI	Forest Decommissioning activities on site (Air Quality)	N/A	None	National	Negligible	Not Significant	None	Not Significant
Other Designations within 5km	Statutory Decommissioning activities on site (Direct Effects)	Proposed development design, physical separation	None	National	N/A	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		from designations.						
Other Statutory Designations within 5km	Decommissioning activities on site (Indirect Effects)	Proposed development design, physical separation from designations.	None	National	N/A	Not Significant	None	Not Significant
River Road RNRs	Decommissioning activities (Direct Effects)	Proposed development design including maintenance of buffer zones. Protection and pollution prevention measures implemented	None	Local	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		d through CEMP						
River Road RNRs	Decommissioning activities (Indirect Effects)	Proposed development design including maintenance of buffer zones. Protection and pollution prevention measures implemented through CEMP	None	Local	Negligible	Not Significant	None	Not Significant
Other non-statutory Designation; Walton Road RNR, Priory Road RNR,	Decommissioning activities (Direct Effects)	Proposed development design including maintenance	None	Local	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
& Lynn Road Disused Railway		e of buffer zones,						
Other non-statutory Designation; Walton Road RNR, Priors Road RNR, & Lynn Road Disused Railway	Decommissioning activities (Indirect Effects)	Proposed development design including maintenance of buffer zones,	None	Local	Negligible	Not Significant	None	Not Significant
Habitats (Trees)	Decommissioning activities (Direct Effects)	Retention of trees (including veteran trees), and maintenance of buffer zones. Pollution prevention measures implemented through CEMP. Including	None	Site	Minor to Major	Not Significant Beneficial	None	Not Significant Beneficial



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		retention and management of additional planting to be detailed within the oLEMP.						
Habitats (Trees)	Decommissioning activities (Indirect Effects)	Retention of trees (including veteran trees), and maintenance of buffer zones. Pollution prevention measures implemented through CEMP	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Habitats (Woodland)	Decommissioning activities (Direct Effects)	Retention of woodland habitats outside of solar areas and maintenance of buffer zones. Pollution prevention measures implemented through CEMP.	None	Site	Negligible	Not Significant	None	Not Significant
Habitats (Woodland)	Decommissioning activities (Indirect Effects)	Retention of woodland habitats outside of solar areas and maintenance of buffer zones. Pollution	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		prevention measures implemented through CEMP						
Habitats (Hedgerows and Tree Lines)	Decommissioning activities (Direct Effects)	Retention of hedgerows and tree lines and maintenance of buffer zones. Pollution prevention measures implemented through CEMP. Including retention and management of additional planting to	None	Site	Minor to Major	Not Significant Beneficial	None	Not Significant Beneficial



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		be detailed within the oLEMP.						
Habitats (Hedgerows and Tree Lines)	Decommissioning activities (Indirect Effects)	Retention of hedgerows and tree lines and maintenance of buffer zones. Pollution prevention measures implemented through CEMP	None	Site	Negligible	Not Significant	None	Not Significant
Habitats (Ponds)	Decommissioning activities (Direct Effects)	Retention of ponds and associated habitats and maintenance of buffer zones. Pollution	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		prevention measures implemented through CEMP						
Habitats (Ponds)	Decommissioning activities (Indirect Effects)	Retention of ponds and associated habitats and maintenance of buffer zones. Pollution prevention measures implemented through CEMP	None	Site	Negligible	Not Significant	None	Not Significant
Invasive Non-native Species	Decommissioning activities on Site: risk of spread. (Direct and	Locations of INNS captured by retention buffers for habitats of	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
	Indirect Effects)	raised ecological value (hedgerows, trees (including veteran trees), woodlands, ponds). Maintenance of buffer zones. Measures to prevent spread to be detailed within CEMP / LEMP.						
Roosting Bats	Decommissioning activities (Direct Effects)	Retention of trees and maintenance of associated	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		buffer zones.						
Roosting Bats	Decommissioning activities (Indirect Effects).	Retention of trees and maintenance of associated buffer zones. Control of construction lighting including within DEMP.	None	Site	Negligible	Not Significant	None	Not Significant
Foraging/Commuting Bats	Decommissioning activities (Direct Effects)	Retention of key vegetation including woodland, hedgerows, trees and maintenance of	None	Site Regional -	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		associated buffer zones. Protection measures implemented through DEMP, sensitive design and minimisation of decommissioning lighting						
Foraging/Commuting Bats	Decommissioning activities (Indirect Effects).	Retention of key vegetation including woodland, hedgerows, trees and maintenance of associated	None	Site Regional -	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		buffer zones. Protection measures implemented through DEMP, sensitive design and minimisation of decommissioning lighting						
Badger	Decommissioning activities (Direct Effects)	Retention of key vegetation, identification and protection of setts and associated buffer zones (30m around	None	Site	Negligible	Not Significant	Update Badger survey work to be undertaken prior to commencement to ensure any changes and/or new	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		existing setts), Construction measures and safeguards implemented through CEMP.					setts are identified. Should additional setts be discovered in locations of consequence to progression of construction activities, further specific mitigation to be designed accordingly, including implementation under licence if necessary.	



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Badger	Decommissioning activities (Indirect Effects).	Retention of key vegetation, identification and protection of setts and associated buffer zones (30m around existing setts), Construction measures and safeguards implemented through CEMP.	None	Site	Negligible	Not Significant	Update Badger survey work to be undertaken prior to commencement to ensure any changes and/or new setts are identified. Should additional setts be discovered in locations of consequence to progression of construction activities, further	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
							specific mitigation to be designed accordingly, including implementation under licence if necessary.	
Otter and Water Vole	Construction activities (Direct and Indirect)	Retention of key vegetation including ponds and ditches, and maintenance of associated buffer zones.	None	N/A	Negligible	Not Significant	None	Not Significant
Other Mammals	Decommissioning activities	Retention of key vegetation including	Adverse short term	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
	(Direct and Indirect)	woodland, hedgerows, trees and maintenance of associated buffer zones. Working measures and safeguards implemented through DEMP						
Breeding Birds	Decommissioning activities (Direct and Indirect)	Retention of key vegetation including woodland, hedgerows, trees and maintenance of associated	None	Site - Regional	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
		buffer zones. Construction measures and safeguards implemented through DEMP including timing of works/vegetation clearance/nesting bird checks and/or ECoW attendance.						
Wintering Birds	Decommissioning activities: Temporary loss of habitat,	Retention of key vegetation including woodland, hedgerows,	None	Site	Negligible	Not Significant	None	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
	killing, injury or disturbance of individuals	trees and maintenance of associated buffer zones. Construction measures and safeguards implemented through DEMPs including timing of works/vegetation clearance/nesting bird checks and/or ECoW attendance.						



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
Reptiles	Decommissioning activities: Temporary loss of habitat, killing, injury or disturbance of individuals (dependent on forthcoming survey results)	Scheme design retention of key vegetation, field margins and associated buffers.	Adverse Short Term	Site	Minor to Major	Significant Adverse	Working measures and safeguards implemented through DEMP, including specific reptile mitigation strategy (if required)	Not Significant
Amphibians (Great Crested Newt)	Decommissioning activities: Temporary loss of habitat, killing, injury or disturbance of individuals	Retention of existing ponds with associated buffers.	None	N/A	Negligible	Not Significant	Working measures and safeguards implemented through DEMP (if required).	Not Significant



Receptor/Feature	Activity	Embedded Mitigation Measures	Nature and Duration of Effect	Sensitivity of Receptor	Magnitude of Impact	Preliminary Likely Significant Effects	Additional Mitigation Measures	Residual Effect Significance
	(unlikely based on current survey information albeit awaiting further confirmation in regard to ponds located 250-500m from the Site).							



## References

- Ref 7-1 CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine, ver. 1.3 (updated September 2024)
- Ref 7-2 CIEEM (2017) Guidelines for Preliminary Ecological Appraisal
- Ref 7-3 CIEEM (2023) Guidelines for accessing, using & sharing biodiversity data in the UK
- Ref 7-4 Joint Nature Conservation Committee (2010, as amended) 'Handbook for phase 1 habitat survey: A technique for environmental audit.'
- Ref 7-5 UKHAB Ltd (2023) UK Habitat Classification Version 2.0 2024)
- Ref 7-6 Natural England (2022) Ancient woodland, ancient trees and veteran trees: advice for making planning decisions
- Ref 7-7 Copping and Waite et al (2025) Solar farm management influences breeding bird responses in an arable-dominated landscape
- Ref 7-8 Air Pollution Information System (APIS) Online Database
- Ref 7-9 English Nature (2004) 'An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt *Triturus cristatus*'. English Nature Research Report 576



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Volume 1, Chapter 7: Ecology and Biodiversity  
May 2025