



# Preliminary Ecological Appraisal and Preliminary Roost Assessment

Land to the rear of the For Farmers industrial unit/manufacturing plant, IP22 5TJ  
Cameron Brook

Status	Issue	Name	Date
Draft	1	Georgia Arnold BSc (Hons), MSc Graduate Ecologist	23/01/2023
Reviewed	1.1	Lizi Pimlott BSc (Hons) MSc MCIEEM MRSB, Principal Ecologist	25/01/2023
Final	2	Georgia Arnold BSc (Hons), MSc Graduate Ecologist	25/01/2023

### Arbtech Consultant's Contact Details:

Georgia Arnold  
Graduate Ecologist  
**Tel:** 07512300377 **Email:** georgiaarnold@arbtech.co.uk  
<https://arbtech.co.uk>

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### Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

### Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

## Executive Summary

Arbtech Consulting Limited was instructed by Cameron Brook to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at the land to the rear of the For Farmers industrial unit / manufacturing plant, IP22 5TJ (hereafter referred to as “the site”). The survey was required to inform a planning application for the installation of a solar farm/PV systems on the land to the rear of the For Farmers industrial unit (hereafter referred to as “the proposed development”).

**The following is work you will need to commission to obtain planning permission and to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 8 of this report.**

<b>Feature</b>	<b>Foreseen impacts</b>	<b>Recommendations</b> <i>Measures required to adhere to guidance, legislation and planning policies.</i>
Designated sites	No direct impacts to any designated sites will occur as a result of the proposed development. However, due to the possible presence of non-statutory designations in the vicinity of the site, indirect effects such as pollution or tree damage could occur during construction.	Best practice measures to minimise the possibility of pollution and tree damage must be implemented during construction.
Habitats and Flora	The proposed development will result in the loss of 0.073ha of modified grassland for construction of the solar development. This is likely to have a minimal impact on biodiversity due to the low ecological value of this habitat. The hedgerows and woodland on site will be fully retained under the proposed development. However, due to the proximity of the proposed works to these habitats within the site, indirect effects such as pollution or tree damage could occur during construction.	Best practice measures to minimise the possibility of pollution and tree damage must be implemented during construction.  *Note from client - The council have confirmed that the development will not be required to achieve BNG. Enhancements listed in this PEA report are sufficient. Additionally, losses will be compensated by the creation/enhancement measures included in the proposed plan, which may result in a net gain in biodiversity. Please refer to Table 8 and Appendix 1.
Amphibians	The proposed development will result in the loss of 0.073ha of modified grassland for construction of the solar development. The loss of such habitats is likely to be inconsequential to local amphibian populations owing to the scale of loss and the presence of more extensive habitat locally. However, site clearance could result in the death or injury of GCN and common amphibians, if present. If great crested newts are present within the pond 15m south of the site, when completing the rapid risk assessment published by Natural England (Natural England 2015), the proposed development produces an <b>AMBER risk score</b> , which states: <b>Offence LIKELY</b> . When completing the rapid risk assessment for ponds over 100m from the site, the proposed	It is recommended that environmental DNA (eDNA) surveys will be required of any ponds within 100m of the site (where accessible – access to third party land will be required) to determine the presence or absence of great crested newts. eDNA surveys include the collection of water samples which are sent off for laboratory analysis. Such surveys must be undertaken between mid-April and June, in accordance with current survey guidelines (Biggs et al, 2014).  Should eDNA surveys of ponds within 100m return a negative result, a precautionary working method strategy will be adopted for the site during and post-development, please refer to Table 8.

	development produces a <b>GREEN risk score</b> , which states: Offence <b>HIGHLY UNLIKELY.</b>	
Reptiles	The proposed development will result in the loss of 0.073ha of modified grassland for construction of the solar development. The loss of such habitats is likely to be inconsequential to local reptile populations owing to the scale of loss and the presence of more extensive habitat locally. However, construction works could result in the death or injury of reptiles, if present.	A precautionary working method strategy will be adopted for the site during and post-development, please refer to Table 8.
Roosting bats (buildings and trees)	All trees will be fully retained under the proposed development. Building B1 may be demolished to create direct access for the solar development. Bats are very unlikely to be roosting within this building and as such, there are not anticipated to be any impacts on bats in this location as a result of the proposed development.	In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.
Badgers	No works will be undertaken within 30m of a badger sett. The proposed development will result in the loss of 0.073ha of modified grassland for construction of the solar development. The loss of such habitats is likely to be inconsequential to local badger populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of badgers, if present.	A precautionary working method strategy will be adopted for the site during and post-development, please refer to Table 8.
Hedgehogs	The proposed development will result in the loss of 0.073ha of modified grassland for construction of the solar development. The loss of such habitats is likely to be inconsequential to local hedgehog populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of hedgehogs, if present.	A precautionary working method strategy will be adopted for the site during and post-development, please refer to Table 8.
Nesting birds (buildings)	The proposed development will result in the demolition of building B1 to provide access for the solar development. This could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	The demolition of B1 should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.

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## **1.0 Introduction and Context**

### ***1.1 Background***

Arbtech Consulting Limited was instructed by Cameron Brook to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at Land to the rear of the For Farmers industrial unit/manufacturing plant, IP22 5TJ (hereafter referred to as “the site”). The survey was required to inform a planning application for the installation of a solar farm/PV systems on the land to the rear of the For Farmers industrial unit (hereafter referred to as “the proposed development”). A plan showing the proposed development is provided in Appendix 1.

The aim of the PEA was to obtain data on existing ecological conditions, and to conduct a preliminary assessment of the likely significance of ecological impacts on the proposed development. The aim of the PRA was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how bats could use the site for roosting, foraging or commuting.

No previous ecology reports have been produced for this site by Arbtech Consulting Ltd or, to the author’s knowledge, by any other consultancy.

### ***1.2 Site Context***

The site is located at National Grid Reference TM 13653 83926 and has an area of approximately 8.18ha comprising a large industrial unit/manufacturing plant (For Farmers) within an area of hardstanding enclosed by fencing, around which lies small areas of modified grassland, scrub, scattered trees and treelines. To the rear of the industrial unit there is a large area of grassland (former playing field) and associated abandoned outbuilding (pavilion) with surrounding woodland, a small area of scrub and several ditches. The site is located in a rural context just north of the village of Burston, located 3 miles north-east of Diss in the south Norfolk district. It is largely surrounded by arable land and grassland, with some small built up areas and agricultural infrastructure within the surrounding landscape. A minor road runs adjacent to the west of the site.

A site location plan is provided in Appendix 2.

### ***1.3 Scope of the Report***

The PEA element of this report describes the baseline ecological conditions at the site, evaluates habitats within the survey area in the context of the wider environment and describes the suitability of those habitats for notable or protected species. It identifies possible ecological constraints as a result of the proposed development and summarises the requirements for further surveys and mitigation measures to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

The PRA element of this report provides a description of all features suitable for roosting, foraging and commuting bats and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides

information on possible constraints to the proposed development as a result of bats and summarises the requirements for any further surveys to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken to record baseline information on the site and surrounding area including habitat types and their suitability for notable or protected species, including roosting bats.
- Invasive plant and animal species (such as those listed on Schedule 9 of the Wildlife & Countryside Act) have been identified.
- Potential impacts on features of value, as a result of the proposed development, have been identified.
- Recommendations for further surveys and mitigation have been made.
- Opportunities for the enhancement of the site for biodiversity have been set out.



## 2.0 Methodology

### 2.1 Desk Study

The desk study included a review of the magic.gov.uk database for statutory designated sites within a 2km radius of the site. Landscape value and the presence of notable habitats as well as granted European Protected Species Licence (EPSL) and notable species records held on magic.gov.uk database has also been considered where these are within influencing distance of the site.

### 2.2 Field Survey

The survey was undertaken by Georgia Arnold (Accredited Agent under Natural England Bat Licence Number: 2018-33540-CLS-CLS) on 13/1/2023.

#### Preliminary Ecological Appraisal

An extended habitat survey was undertaken, following the methodology set out in UK Habitat Classification User Manual (UK Habitat Classification Working Group, 2018). All land parcels are described and mapped and, where appropriate, target notes provide supplementary information on habitat conditions, features too small to map to scale, species composition, structure and management. Botanical species lists were compiled with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).

During the survey, habitats were assessed for their suitability to support protected species, and field signs indicating their presence recorded. The assessment takes into consideration the findings of the desk study, the habitat conditions on site and in the context of the surrounding landscape, and the ecology of the protected species.

Ponds on and adjacent to the site were assessed for their suitability to support great crested newts using the *Habitat Suitability Index (HSI) Assessment Methodology* (Oldham et al, 2000).

#### Preliminary Roost Assessment

The PRA focussed on one built structure which will be affected by the proposed development as well as providing an overview of the wider site and the surrounding landscape for bat roosting, foraging and commuting habitat.

##### For any surveyed buildings:

A non-intrusive visual appraisal was undertaken from the ground, using binoculars to inspect the external features of the building for features which bats could use for roosting, including access or egress points and for signs of bat use including droppings, scratch marks, insect remains and urine smear marks. An internal inspection of the building was also made, including the living areas and any accessible roof spaces, using a torch and ladders. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows. An endoscope was used to complete a close-up inspection of any accessible features, where appropriate.

For any surveyed trees:

A visual inspection was undertaken from ground level using binoculars and, where accessible and safe to do so, an internal inspection of any features which bats could use for roosting was completed using an endoscope, torch and ladders.

Suitability Assessment

Built structures and trees were categorised according to the likelihood of bats being present and the types of roost that the identified features could support. This is summarised in Table 1 for buildings and Table 2 for trees below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats

<b>Classification</b>	<b>Feature of building and its context</b>
Moderate to high	Buildings or structures with features of particular significance for larger numbers of roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data). Buildings with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	A small number of possible roost sites or features, used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities or upwards orientation with exposure to inclement weather or predators. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.
Negligible	Unsuitable for use by bats.

Table 2: Features of a tree that are correlated with use by bats

<b>Classification</b>	<b>Feature of tree and its context</b>
Moderate to high	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. Trees with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential to be used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities or upwards orientation with exposure to inclement weather or predators.
Negligible	Unsuitable for use by bats.

### ***2.3 Limitations***

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood, and the known distribution of species as recovered during the desk study.

A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report.

The survey was completed outside of the optimal survey period (April to October) limiting the identification of ground flora species.

These limitations have been taken into account during the evaluation of the site and requirement for further surveys and mitigation.

### 3.0 Results and Evaluation

#### 3.1 Designated Sites

No statutory designated sites were identified within 2km of the site. The presence of non-statutory designated sites within 2km of the site cannot be established without data from the Norfolk Biodiversity Information Service (NBIS).

The site lies within the impact risk zone for Shelfanger Meadows Site of Special Scientific Interest (SSSI). The proposed development type is not listed as a possible high risk with regard to this designation.

#### 3.2 Field Survey Results

The results of the field survey are illustrated in Appendix 3. The weather conditions recorded at the time of the survey are shown in Table 3.

*Table 3: Weather conditions during the survey*

Date: 13/01/2023	
Temperature	9°C
Humidity	72%
Cloud Cover	100%
Wind	24.8mph
Rain	None

#### Habitats and Flora


The following habitats are present within and adjacent to the site:

- u1b5 – Building
- u1b – Developed land, sealed surface
- g4, 11, 17 – Modified grassland, scattered trees, ruderal/ephemeral vegetation
- h2a, 47, 190 – Hedgerow (priority habitat), native, with trees
- r2b, 191 – Other rivers and streams, ditch
- w1h, 36 – Other woodland - mixed, plantation
- w1g6 – Other woodland, line of trees



A description and photographs of each habitat are provided in Table 4.

No protected or non-native invasive plant species were identified on the site. However, given that the survey was completed outside of the optimal survey period (April to October) limiting the identification of ground flora species, the presence of other protected or non-native invasive plant species on site cannot be discounted.



Table 4: Description and photographs of habitats within and adjacent to the site

Habitat Type	Habitat description	Photograph
u1b5 - Building	There are two built structures on site (B1 and B2). B2 comprises all buildings within the For Farmers industrial unit/manufacturing plant which will not be impacted by the proposed development. B1 is discussed in more detail in Table 5.	No photo.
u1b - Developed land, sealed surface	The hardstanding within and surrounding the industrial unit/manufacturing plant (B2) comprises areas of gravel and concrete. Due to a period of abandonment, the area of gravel/hard standing to the south of B2 at the south-western corner of the site contains some early successional vegetation comprising mosses and short perennial rye grass, with occasional common dandelion, ribwort plantain and small flowered cranesbill. Due to the low structural and species diversity, these types of surfaces will offer negligible habitat value for protected species.	





<p>g4, 11 – Modified grassland, scattered trees</p>	<p>The are some small areas of modified grassland around the main industrial unit/manufacturing plant (B2). The grassland is mown/well managed, resulting in a short sward of approximately 3-5cm and limited structural and species diversity. The modified grassland habitat is largely dominated by perennial ryegrass, with occasional common dandelion, creeping thistle, spear thistle and meadow buttercup.</p> <p>There are scattered trees present within the area of modified grassland to the south of B2. Species present include ash, oak and sycamore.</p>	
<p>g4 – Modified grassland</p>	<p>The former playing field adjacent to the rear of the main industrial unit/manufacturing plant (B2) towards the east of the site comprises a large area of modified grassland (approximately 2.9ha) which has been previously managed/subject to mowing, resulting in a sward of approximately 5 -15cm and limited structural and species diversity. The modified grassland habitat is largely dominated by perennial ryegrass, with abundant spike moss; frequent common nettle and switchgrass; occasional purple deadnettle, hairy bitter-cress, cranesbill, chickweed and common groundsel; and rare field sow thistle and creeping thistle.</p> <p>There are many small holes present in the field indicative of small mammal holes. These could be used by species such as field voles or bank voles and may also be used by reptiles.</p>	




<p>g4, 17 – Modified grassland, ruderal/ephemeral vegetation</p>	<p>There is an area of tall ruderal/ephemeral vegetation adjacent to the modified grassland and ditch at the northern site boundary (pictured). Species present include abundant common nettle (dead stems visible) and bramble; frequent cleavers; occasional purple deadnettle, bush grass and ground ivy; and rare common hogweed.</p> <p>An additional area of tall ruderal/ephemeral vegetation is present on an area of raised ground/bank at the south-western corner of the site. Species present include abundant common nettle (dead stems visible) and bramble; occasional sorrel, cleavers, purple deadnettle, bush grass, common dandelion and old man’s beard.</p>	
<p>h2a, 47, 190 – Hedgerow (priority habitat), native, with trees</p>	<p>There are hedgerows on site are located along the northern boundary with a gap present in the centre and in the south-eastern corner of the site across part of the eastern and southern boundaries. These hedgerows are classed as S41 native hedgerow - a priority habitat or habitat of principal importance for biodiversity conservation.</p> <p>The hedgerow on the northern boundary comprises both young and mature trees in varying physiological condition. Species identified include holly, apple, laurel, dogwood, Persian ivy, bramble, red cedar and blackthorn.</p> <p>The hedgerow on the eastern and southern boundary (pictured) comprises both young and mature trees in varying physiological condition. Species identified include blackthorn, oak, hawthorn, ash, laurel, elm and field maple.</p>	



<p>r2b, 191 – Other rivers and streams, ditch</p>	<p>There are several drainage ditches less than 5m wide is present on site along the northern boundary, part of the western boundary, and perpendicular to the southern boundary. All the ditches contain a small amount of stagnant water. The banks of the ditches along the northern and western boundaries are vegetated and have some vegetation present under the water. The banks of the ditch perpendicular to the southern boundary comprise bare ground/soil and no vegetation.</p>	
<p>w1h, 36 – Other woodland, mixed, plantation</p>	<p>There are three areas of mixed woodland in total on site. Two areas of woodland located either side of the former playing field/modified grassland at the east of the site. The woodland to the west is approximately 1.2ha and the woodland to the east approximately 1.05ha. These areas of woodland comprise both mature and young trees. Species present include oak, hazel, holly, sweet chestnut, ash, Scots pine, hawthorn, laurel, bramble and blackthorn. There is an owl box present in the woodland at the eastern boundary which is unsuitable for barn owls but may be used by other owl species such as tawny owls.</p> <p>There is one small additional section of woodland (approximately 0.1ha) at the south-west corner of the site between the grassland and hard standing, part of which has been recently cleared. This section of woodland comprises both mature and young trees. Species present include Leyland cypress, oak, hazel, birch and elm.</p>	



w1g6 – Other woodland, line of trees	There is one tree line on site between B1 and B2 adjacent to an area of hardstanding. The tree line is a mature, coniferous tree line comprising Leyland cypress.	
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## Fauna

### Bats

A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licensed site.

EPSL records for bats are summarised in Table 5.


Table 5: Granted EPSLs for bats within 2km of the site



<b>EPSL reference</b>	<b>Bat species affected</b>	<b>Impacts allowed by licence</b>
2019-40679-EPS-MIT - Approximately 1530m north-east	Common pipistrelle, Brown long-eared	Destruction of a resting place

The trees on site were assessed to provide negligible habitat value for roosting bats from ground level due to a lack of roosting features. The pockets of woodland and tree lines on site may provide suitable foraging and commuting habitat for bats. The connecting network of hedgerows around arable land connecting to small pockets of woodland within the surrounding landscape will also provide good commuting and foraging habitat. The pockets of woodland within the wider landscape could also provide bat roosting value.

The results of the PRA are provided in Table 6. No evidence of roosting bats was identified during the survey.


Table 6: Assessment of the suitability of the site for bats

Feature Ref	Description	Photographs
<p>B1 – southern and eastern elevations</p>	<p>B1 is a neglected, detached, single storey building formerly used as a pavilion. The building has a pitched, gabled roof formed of corrugated metal roofing. The roofing appears in good condition with no gaps or holes which could be used by bats. This type of roofing is generally considered unsuitable for use by bats as it is predisposed to extreme temperature fluctuations.</p> <p>The building structure comprises a mix of vertical and horizontal wooden cladding/panels which show signs of weathering and superficial markings but are tight and without cracks or gaps within which crevice-dwelling bats could roost or void dwelling bats could access the building.</p>	

<p>B1 – southern and western elevations</p>	<p>There is a gated car port (pictured) on the southern elevation comprising a metal gate, a timber frame structure and a concrete floor with some stored items present. The port is highly exposed and therefore unsuitable for use by bats. However, there is a bird's nest present within the port (see below).</p> <p>There are two porches present on the building. One porch on the western elevation at the northern end and one porch at the centre of the eastern elevation. Both porches comprise a wooden structure with no suitable bat roosting sites. Due to a lack of suitable features and the open structure rendering them highly exposed, the porches are considered unsuitable for use by bats.</p>	
<p>B1 – close up of gated port within southern elevation</p>	<p>This photo shows a close up of the bird's nest present on top of the timber ridge beam below the corrugated metal roofing and adjacent to the wall.</p> <p>There was evidence of bird activity in the form of bird droppings on the concrete floor below the ridge beam.</p>	



<p>B1 – northern and eastern elevations</p>	<p>A damaged wooden soffit box runs below the roof line on the northern and southern elevations. The soffit boxes on both elevations appear heavily damaged and are missing either the lower part of the box or the front/outer part, rendering the soffit highly exposed and unsuitable for bats (see below).</p> <p>The doors around the building are wooden framed and appear in good condition with no suitable bat roosting sites. The windows around the building are boarded with wooden chipboards preventing access into the building.</p>	
<p>B1 – close up of damaged soffit on northern elevation</p>	<p>This photo shows a close up of the damaged soffit box on the northern elevation. The soffit appears heavily damaged and is missing the lower part of the box, rendering it highly exposed and unsuitable for bats or birds.</p>	

B1 – interior	<p>There is no loft space within the main roof void of B1. Internally, the rooms extend into the roof void. The internal structure comprises wooden support beams and tight wooden cladding with no holes or gaps.</p> <p>With the exception of some small sections of light coming through the glass windows above the woodchip boards, no daylight enters the internal space which indicates that it is well sealed.</p> <p>The floor is carpeted and contain some stored items. There are thick cobwebs around the wooden beams and stored items and roof to wall cobwebs which could indicate a lack of internal flying activity from void dwelling bats, such as brown long-eared bats. The stored items made it easier to search for evidence of bat activity because when present, bat droppings can accumulate on top of the stored items. Not bat droppings were found. There was evidence of mouse activity including mouse droppings.</p>	
B1 - evidence of bats	There was no evidence of bats located internally or externally on the survey building. B1 therefore has <b>negligible</b> value for roosting bats due to a lack of roost features internally and externally on the building.	No photo.
B1 – evidence of breeding birds	There was evidence of nesting birds located externally on the survey building at the southern elevation within the gated car port (see above). B1 therefore has value for nesting birds.	No photo.

### Other Species

A review of the MAGIC database returned no granted EPSL records for other species within 2km of the site and no class license returns for great crested newts. Pond survey data from a survey conducted in 2019 at a pond approximately 2km south-west of the site found no great crested newts present.

An assessment of the suitability of the site for protected or notable species is provided in Table 7.

*Table 7: Assessment of the suitability of the site for protected or notable species*

Species	Assessment of suitability																					
Amphibians	<p>The site is dominated by modified grassland; this is generally considered unsuitable habitat owing to the short sward and low structural and species diversity which provides limited opportunities for refuge opportunities and is unlikely to support hibernating amphibian species. However, the tree lines, hedgerows, areas of mixed woodland and tall ruderal/ephemeral vegetation may provide suitable refuge and terrestrial habitat for GCN and other common amphibians. There are no ponds on site, however there are two ditches on site which are vegetated and have suitable egg laying materials for GCN. However, these ditches only contain a small amount of stagnant water however, which is likely to be dry for much of the summer.</p> <p>A review of aerial imagery indicates the presence of twenty ponds within 500m of the site including a pond located within the adjacent residential garden approximately 15m south of the southern boundary. Other ponds include a pond approximately 45m west, 80m west, 100m west, 130m west, 155m north-west, 215m south-west, 225m north-east, 230m north-east, 295m south, 330m south-west, 350m south, 365m south-east, 375m east, 380m east, 430m east, 460m east, 465m east, 475m south and 475m north-east. All nine ponds within 250m appear to have suitable connectivity to the site through grassland, arable land, hedgerows and flat tarmac roads with no curb. Although some of the grassland is managed to a short sward length, given the short distances between the ponds and the site, the presence of commuting great crested newts in their terrestrial phase within suitable habitats on site cannot be discounted.</p> <p>Given that some habitats on site are assessed to provide terrestrial opportunities for GCN and there is potential connectivity to nine ponds within 250m of the site, a GCN rapid assessment was conducted to determine potential impacts from the development (see below). As the solar development will be constructed on top of the grassland and much of the habitat will remain intact, the total loss of grassland comprises the total road area (access for construction), the total container area (the LV PVDB container), the total fence area (2m high deer stock wire fence), and the total pile area (pile area, no. modules, no. piles, modules/pile). Based on the proximity of the nearest connected pond to the site (approximately 15m south) and the anticipated quantity of land to be lost to the proposed development (0.073ha of modified grassland), the resulting notional offence probability score is classed as <b>AMBER</b>, meaning an offence to GCN is <b>LIKELY</b> under the proposed development if present on site.</p> <p><i>Table 7a: Natural England GCN Rapid Assessment.</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #d9ead3;">Component</th> <th style="background-color: #d9ead3;">Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)</th> <th style="background-color: #d9ead3;">Notional offence probability score</th> </tr> </thead> <tbody> <tr> <td>Great crested newt breeding pond(s)</td> <td style="background-color: #d9ead3;">No effect</td> <td style="background-color: #d9ead3;">0</td> </tr> <tr> <td>Land within 100m of any breeding pond(s)</td> <td style="background-color: #d9ead3;">0.01 - 0.1 ha lost or damaged</td> <td style="background-color: #d9ead3;">0.3</td> </tr> <tr> <td>Land 100-250m from any breeding pond(s)</td> <td style="background-color: #d9ead3;">0.01 - 0.1 ha lost or damaged</td> <td style="background-color: #d9ead3;">0.01</td> </tr> <tr> <td>Land &gt;250m from any breeding pond(s)</td> <td style="background-color: #d9ead3;">0.01 - 0.1 ha lost or damaged</td> <td style="background-color: #d9ead3;">0.001</td> </tr> <tr> <td>Individual great crested newts</td> <td style="background-color: #d9ead3;">No effect</td> <td style="background-color: #d9ead3;">0</td> </tr> <tr> <td></td> <td style="text-align: right;">Maximum:</td> <td style="background-color: #d9ead3;">0.3</td> </tr> </tbody> </table> <p style="margin-top: 10px;">Rapid risk assessment result: <span style="background-color: #f4cccc; padding: 2px 10px;"><b>AMBER: OFFENCE LIKELY</b></span></p>	Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score	Great crested newt breeding pond(s)	No effect	0	Land within 100m of any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.3	Land 100-250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.01	Land >250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.001	Individual great crested newts	No effect	0		Maximum:	0.3
Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score																				
Great crested newt breeding pond(s)	No effect	0																				
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Land >250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.001																				
Individual great crested newts	No effect	0																				
	Maximum:	0.3																				

Reptiles	The modified grassland on site is generally considered unsuitable habitat for reptiles owing to the short sward and low structural and species diversity which results in a lack of refuge opportunities. However, there is a strong presence of small mammal holes within the field of modified grassland which may be utilised by reptiles. Additionally, the mixed woodland, tree lines, hedgerows and tall ruderal/ephemeral vegetation on site may provide suitable basking, sheltering, foraging and hibernation opportunities for reptiles. As such, the presence of reptiles on site cannot be discounted.
Badgers	No evidence of badgers was found within the site. There are no setts on site and overall, the site is relatively flat except for some mounds covered by tall ruderal/ephemeral vegetation at the south-western corner of the site which may be suitable for sett excavation. The modified grassland, mixed woodland, tree lines, hedgerows and tall ruderal/ephemeral vegetation on site may offer suitable foraging and commuting opportunities for badgers. Furthermore, the connectivity of the site to surrounding arable land and network of hedgerows to small pockets of woodland within 2km may also provide suitable badger habitat. As such, the presence of foraging and commuting badgers on site cannot be discounted.
Hazel Dormouse	The mixed woodland, hedgerows and tree lines on site may offer foraging, commuting, and nest building opportunities for dormouse. Dormice typically utilise a three-dimensional habitat structure as to commute between feeding and breeding sites whilst avoiding predation; the woodland and tree lines within the site and connecting within surrounding landscape may support this habitat structure. For isolated habitats in the UK, research indicates that dormice require 20ha of woodland habitat to support a viable population (Bright et al. 1994). Although 20ha of woodland is not present on or directly adjacent to the site, the network of hedgerows within the wider landscape are connected to multiple small woodland pockets. As such, the presence of dormice cannot be discounted, albeit limited to within the areas of woodland and treelines.
Hedgehog	The modified grassland, mixed woodland, tree lines, hedgerows and tall ruderal/ephemeral vegetation on site may offer suitable foraging and sheltering opportunities for hedgehogs, whilst the connecting arable land and hedgerows within the surrounding landscape will offer additional suitable habitat for hedgehogs. As such, the presence of foraging and sheltering hedgehogs on site cannot be discounted.
Otter and Water vole	There is no suitable riparian habitat on or adjacent to the site.
Birds	The site is likely to offer nesting value for a broad range of bird species. Due to the type and extent of habitats recorded, the site is not considered suitable to support a significant assemblage of protected and/or notable bird species. However, the mixed woodland, hedgerows and tree lines on site are suitable to support a small number of common nesting bird species. Additionally, there is an owl box present within the mixed woodland at the east of the site. Due to its shape and structure, this owl box appears to be unsuitable for species such as barn owl but may be used by other species such as tawny owl or cavity-dwelling raptors. Given the strong presence of small mammal holes within the modified grassland/former playing field on site, the grassland may provide good foraging habitat for owls and raptors.
Invertebrates	The modified grassland, mixed woodland, tree lines, hedgerows, ditches and tall ruderal/ephemeral vegetation on site will provide habitat for common and widespread invertebrate species. No evidence of any protected, rare or notable invertebrate species was identified during the survey.

## 4.0 Conclusions, Impacts and Recommendations

### 4.1 Informative Guidelines

A summary of the relevant legislation and planning policies is provided in Appendix 4.

### Likelihood of the Presence of Protected Species

Where physical evidence of the presence of protected species is indeterminate during the survey, the habitats on site are evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat.

Where this report supports a planning application, the ecological interest of the study area (i.e. the area covered by the desk study and field survey) and the proposed development has also been evaluated in terms of the planning policies relating to biodiversity.

### 4.2 Evaluation

Taking the desk study and field survey results into account, Table 8 presents an evaluation of the ecological value of the site and also details any ecological constraints identified in relation to the proposed development which will comprise the installation of a solar farm/PV systems on the land to the rear of the For Farmers industrial unit.

Table 8: Evaluation of the site and any ecological constraints

<b>Ref</b>	<b>Summary of Survey Findings</b>	<b>Foreseen Impacts</b>	<b>Recommendations</b> <i>Measures required to adhere to guidance, legislation and planning policies.</i>	<b>Biodiversity Enhancements</b> <i>The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021) and the South Norfolk Local Plan</i>
Designated sites	There are no statutory designated sites within 2km of the site. The site lies within the impact risk zone for Shelfanger Meadows Site of Special Scientific Interest (SSSI). The proposed development type is not listed as a possible high risk with	No direct impacts to any designated sites will occur as a result of the proposed development. However, due to the possible presence of non-statutory designations in the vicinity of the site, indirect effects such as pollution or tree damage could occur during construction.	Best practice measures to minimise the possibility of pollution and tree damage must be implemented during construction.	None.



	<p>regard to this designation.</p> <p>The presence of non-statutory designated sites within 2km of the site cannot be established without data from the Norfolk Biodiversity Information Service (NBIS).</p>			
Habitats and flora	<p>The site contains native hedgerow which is listed as a habitat of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006).</p> <p>Further notable habitats are present within 2km, including Lowland mixed deciduous woodland, traditional orchards, and coastal and floodplain grazing marsh, the closest being Lowland mixed deciduous woodland located approximately 400m east from the site.</p> <p>The site also contains plantations of mixed woodland which are of good quality and could be of value to local</p>	<p>The proposed development will result in the loss of 0.073ha of modified grassland for construction of the solar development. This is likely to have a minimal impact on biodiversity due to the low ecological value of this habitat. The hedgerows and woodland on site will be fully retained under the proposed development. However, due to the proximity of the proposed works to these habitats within the site, indirect effects such as pollution or tree damage could occur during construction.</p> <p>See 'Biodiversity Enhancements' column for the proposed compensation measures for the solar development included in the proposed plans.</p>	<p>Best practice measures to minimise the possibility of pollution and tree damage must be implemented during construction.</p> <p>*Note from client - The council have confirmed that the development will not be required to achieve BNG. Enhancements listed in this PEA report are sufficient.</p>	<p>Losses will be compensated by the following creation/enhancement measures included in the proposed plan, which may result in a net gain in biodiversity:</p> <ul style="list-style-type: none"> <li>• Planting of native hedges to reduce the visual impact of the solar development on the PROW and to provide habitats to local wildlife and allow safe passage from either side of the field.</li> <li>• Planting of additional wildflowers within retained grassland to provide a net-positive visual impact on the PROW and provide</li> </ul>

	<p>wildlife populations (as detailed in subsequent sections of this table). The remaining habitats are common and widespread and have low ecological value.</p> <p>No protected, invasive or notable plant species were recorded during the survey.</p>			<p>additional habitats for local wildlife.</p> <ul style="list-style-type: none"> <li>• Creation of a 2m high Deer stock wire fence to reduce the visual impact of the development by providing visual permeability and to provide gaps for wildlife to roam freely through the field.</li> <li>• Maintain or bolster the existing hedgerow on the southern boundary to protect the local wildlife habitats and reduce the visual impact of the development from the surrounding area.</li> </ul> <p>Species-specific enhancement opportunities are detailed later in this table.</p>
<p>Amphibians</p>	<p>The site is dominated by modified grassland which is generally considered unsuitable habitat owing to limited refuge opportunities. However, the mixed woodland, hedgerows, tree lines and tall ruderal/ephemeral</p>	<p>The proposed development will result in the loss of 0.073ha of modified grassland for construction of the solar development. The loss of such habitats is likely to be inconsequential to local amphibian populations owing to the scale of loss and the presence of more extensive habitat locally. However, site clearance could result in the death or injury of GCN and common amphibians, if present.</p>	<p>It is recommended that environmental DNA (eDNA) surveys will be required of any ponds within 100m of the site (where accessible – access to third party land will be required) to determine the presence or absence of great crested newts. eDNA surveys include the collection of water samples for laboratory analysis which can detect the presence of great crested newt DNA. Water samples are sent off for laboratory analysis and such surveys must be</p>	<p>To be confirmed upon completion of the surveys.</p>

	<p>vegetation on site could provide suitable refuge and terrestrial habitat for GCN and other common amphibians. There are also 2 vegetated ditches on site which may provide suitable aquatic habitat, however they only contain a small amount of water which may dry up in the summer. There are 20 ponds within 500m of the site, 9 of which are within 250m of the site and connected via modified grassland, hedgerows, agricultural land and tarmac roads with no pavement. As such, the presence of GCN on site cannot be discounted.</p>	<p>If great crested newts are present within the pond 15m south of the site, when completing the rapid risk assessment published by Natural England (Natural England 2015), the proposed development produces an <b>AMBER risk score</b>, which states: <b>Offence LIKELY</b>. When completing the rapid risk assessment for ponds over 100m from the site, the proposed development produces a <b>GREEN risk score</b>, which states: Offence <b>HIGHLY UNLIKELY</b>. As such, if eDNA surveys find an absence of GCN within ponds within 100m, a precautionary working method can be implemented during construction.</p> <p>Proposed compensation measures for the solar development include the planting of additional native hedgerow to the north of the development, bolstering the existing native hedgerow to the south and wildflower planting within retained grassland. This will enhance the existing terrestrial sheltering, foraging and hibernating habitat available on site for amphibians.</p>	<p>undertaken between mid-April and June, in accordance with current survey guidelines (Biggs et al, 2014). The surveys are likely to be required before planning permission can be granted.</p> <p>Should the eDNA surveys of ponds within 100m return a negative result, a precautionary working method should be implemented during construction to reduce potential injury or death to common amphibians, including the following measures:</p> <ul style="list-style-type: none"> <li>• Site clearance will be undertaken outside of the amphibian hibernation season (November to February) insofar as is possible.</li> <li>• A pre-clearance check for amphibians will be undertaken by a suitably qualified ecologist.</li> <li>• A toolbox talk will be given to contractors regarding the possible presence of amphibians including great crested newts at the site.</li> <li>• Heras fencing will be erected around the working area to prevent encroachment into retained habitats where amphibians could be present.</li> <li>• Best practice pollution prevention measures will be implemented to minimise impacts to retained habitats that amphibians could use.</li> <li>• Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.</li> <li>• If any common amphibians are found in the working area these should be moved by hand to a vegetated area along the site boundaries or in retained habitats away from disturbance.</li> </ul>	
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			<ul style="list-style-type: none"> <li>In the unlikely event that a great crested newt is identified, works must cease and advise must be sought from a suitably qualified ecologist.</li> </ul>	
Reptiles	<p>The site is dominated by modified grassland which is generally considered unsuitable habitat for reptiles owing to a lack of refuge opportunities. However, reptiles may use the large number of small mammal holes present in the modified grassland within the former playing field which will be impacted by the proposed development. Additionally, the mixed woodland, hedgerows, tree lines and tall ruderal/ ephemeral vegetation on site may provide suitable habitat for reptiles. As such, the presence of reptiles on site cannot be discounted.</p>	<p>The proposed development will result in the loss of 0.073ha of modified grassland for construction of the solar development. The loss of such habitats is likely to be inconsequential to local reptile populations owing to the scale of loss and the presence of more extensive habitat locally. However, construction works could result in the death or injury of reptiles, if present.</p> <p>Proposed compensation measures for the solar development include the planting of additional native hedgerow to the north of the development, bolstering the existing native hedgerow to the south and wildflower planting within retained grassland. This will enhance the existing terrestrial sheltering, foraging and hibernating habitat available on site for reptiles.</p>	<p>Owing to the nature of the proposed development and the low potential for impacts to reptiles, further surveys are considered to be disproportionate. A precautionary working method will be implemented during construction, including the following measures:</p> <ul style="list-style-type: none"> <li>Site clearance will be undertaken outside of the reptile hibernation season (November to February) insofar as is possible.</li> <li>A toolbox talk will be given to contractors regarding the possible presence of reptiles at the site.</li> <li>Heras fencing will be erected around the working area to prevent encroachment into retained habitats where reptiles could be present.</li> <li>A staged approach will be adopted for vegetation clearance, whereby the vegetation will be strimmed to 10cm and left overnight to allow any reptiles to disperse. The vegetation can then be cleared to ground level and must be maintained at this level for the duration of construction to deter reptiles from the working area.</li> <li>Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.</li> <li>In the unlikely event that a reptile is identified, works must cease and advise must be sought from a suitably qualified ecologist.</li> </ul>	<p>The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for reptiles:</p> <ul style="list-style-type: none"> <li>Creation of reptile refugia and hibernacula using debris and brash from site clearance.</li> <li>Planting of native scrub and grassland to increase foraging opportunities.</li> <li>The creation of basking areas such as rock piles or areas of cleared ground with shelter nearby.</li> </ul>

<p>Roosting bats (buildings and trees)</p>	<p>Building B1 has negligible value for roosting bats due to a lack of potential roost features.</p> <p>The trees on site have negligible value for roosting bats due to a lack of potential roost features.</p>	<p>All trees will be fully retained under the proposed development. Building B1 may be demolished to create a more direct access route for the solar development. Bats are very unlikely to be roosting within this building and as such, there are not anticipated to be any impacts on roosting bats as a result of the proposed development.</p>	<p>In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.</p>	<p>The installation of a minimum of two bat boxes on mature trees around the site boundaries will provide additional roosting habitat for bats e.g. Beaumaris Bat Box Vivara Pro Woodstone Bat Box Wildcare Eco Bat Box NHBS Improved Cavity Bat Box Or a similar alternative brand. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light.</p>
<p>Foraging and commuting bats</p>	<p>The mixed woodland, tree lines and hedgerows on site could be used by local bat populations for foraging and commuting. These could also be used by bats dispersing from nearby roosts outside of the site.</p>	<p>The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats. However, the solar farm may require use of low-level lighting for maintenance. This is unlikely to be to an extent which would cause light spill on to nearby woodland, trees or hedgerows but a low impact lighting strategy has been recommended as a precaution.</p> <p>Proposed compensation measures for the solar development include the planting of additional native hedgerow to the north of the development and bolstering the existing native hedgerow to the south. This will enhance the existing foraging and commuting habitat available on site for bats.</p>	<p>A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures:</p> <ul style="list-style-type: none"> <li>• Use narrow spectrum light sources to lower the range of species affected by lighting.</li> <li>• Use light sources that emit minimal ultra-violet light.</li> <li>• Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm / neutral colour temperature &lt;4,200 kelvin.</li> </ul>	<p>Losses will be compensated by the following creation/enhancement measures included in the proposed plan:</p> <ul style="list-style-type: none"> <li>• Planting of native hedges to reduce the visual impact of the solar development on the PROW and to provide habitats to local wildlife and allow safe passage from either side of the field.</li> </ul>

			<ul style="list-style-type: none"> <li>• Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal.</li> <li>• Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only.</li> <li>• External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on.</li> </ul> <p>Wall lights and security lights will be ‘dimmable’ and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.</p>	<ul style="list-style-type: none"> <li>• Maintain or bolster the existing hedgerow on the southern boundary to protect the local wildlife habitats and reduce the visual impact of the development from the surrounding area.</li> </ul>
<p>Badger</p>	<p>No evidence of badgers was found within site and there are no setts on site. nor is the site suitable for sett excavation. However, the mounds at the south-western corner of the site may be suitable for sett excavation and the woodland, tree lines, hedgerows, grassland and ruderal/ephemeral vegetation on site offer suitable</p>	<p>No works will be undertaken within 30m of a badger sett. The proposed development will result in the loss of 0.073ha of modified grassland for construction of the solar development. The loss of such habitats is likely to be inconsequential to local badger populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of badgers, if present.</p> <p>Proposed compensation measures for the solar development include the planting of additional native hedgerow to the north of the development, bolstering the existing native</p>	<p>A precautionary working method will be implemented during construction, including the following measures:</p> <ul style="list-style-type: none"> <li>• A toolbox talk will be given to contractors regarding the possible presence of badgers at the site.</li> <li>• A pre-commencement inspection of the site will be undertaken for any new badger activity if works do not commence within three months.</li> <li>• Heras fencing will be erected around the working area to prevent encroachment into retained habitats where badger setts could be present.</li> </ul>	<p>See ‘Foreseen Impacts’ column for the proposed compensation measures for the solar development included in the proposed plans.</p> <p>Additionally, planting of fruit bearing trees within new or bolstered hedgerows will provide additional enhancements which would be beneficial for badgers.</p>

	foraging and commuting opportunities. The site is also well connected to suitable habitat within the surrounding landscape. As such, the presence of foraging and commuting badgers on site cannot be discounted.	hedgerow to the south, wildflower planting within retained grassland and creation of a 2m high deer stock wire fence to provide gaps for wildlife to roam freely through the field. This will enhance the existing foraging and commuting habitat available on site for badgers.	<ul style="list-style-type: none"> <li>Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.</li> <li>The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which badgers could use.</li> <li>Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.</li> <li>In the unlikely event that a badger sett is identified, works must cease and advice must be sought from a suitably qualified ecologist.</li> </ul>	
Hazel dormouse	The woodland, hedgerows and tree lines on site may offer foraging, commuting, and nest building opportunities for dormouse. The connecting network of hedgerows and small pockets of woodland in the surrounding landscape may also offer suitable habitat. As such, the presence of dormice cannot be discounted, albeit limited to within the woodland, hedgerows and tree lines.	<p>No impacts are anticipated on hazel dormice as a result of the proposed development as all suitable dormouse habitat is being fully retained under the proposed development.</p> <p>Proposed compensation measures for the solar development include the planting of additional native hedgerow to the north of the development and bolstering the existing native hedgerow to the south. This will enhance the existing foraging, commuting, and nest building habitat available on site for dormice.</p>	None.	<p>See 'Foreseen Impacts' column for the proposed compensation measures for the solar development included in the proposed plans.</p> <p>Additionally, planting of fruit and nut bearing species within new or bolstered hedgerows will provide additional enhancements which would increase foraging opportunities for dormice.</p>
Hedgehog	The woodland, tree lines, hedgerows, grassland and ruderal/ephemeral vegetation	The proposed development will result in the loss of 0.073ha of modified grassland for construction of the solar development. The loss of such habitats is likely to be	A precautionary working method will be implemented during construction, including the following measures:	See 'Foreseen Impacts' column for the proposed compensation measures for the solar development

	<p>on site offer suitable foraging and sheltering opportunities. The site is also well connected to suitable habitat within the surrounding landscape. As such, the presence of hedgehogs on site cannot be discounted.</p>	<p>inconsequential to local hedgehog populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of hedgehogs, if present.</p> <p>Proposed compensation measures for the solar development include the planting of additional native hedgerow to the north of the development, bolstering the existing native hedgerow to the south, wildflower planting within retained grassland and creation of a 2m high deer stock wire fence to provide gaps for wildlife to roam freely through the field. This will enhance the existing foraging, sheltering and commuting habitat available on site for hedgehogs.</p>	<ul style="list-style-type: none"> <li>• A toolbox talk will be given to contractors regarding the possible presence of hedgehogs at the site.</li> <li>• Heras fencing will be erected around the working area to prevent encroachment into retained habitats where hedgehogs could be present.</li> <li>• Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.</li> <li>• The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use.</li> <li>• Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.</li> <li>• If a hedgehog is found then this should be moved by gloved hand to an undisturbed and sheltered area of the site or adjacent land.</li> </ul>	<p>included in the proposed plans.</p> <p>Additionally, planting of fruit bearing trees within new or bolstered hedgerows and creation of brush piles or installation of hedgehog houses in shady areas will provide additional enhancements which would be beneficial for hedgehogs.</p>
Otter and Water vole	<p>There is no suitable riparian habitat on, or adjacent to, the site.</p>	<p>No impacts are anticipated on otters or water voles as a result of the proposed development.</p>	<p>None.</p>	<p>None.</p>
Birds	<p>The woodland, hedgerows and tree lines on site could support nesting birds. All suitable nesting bird habitat within trees will be fully retained under the proposed development.</p> <p>Building B1 contains evidence of nesting birds externally in the</p>	<p>The proposed development will result in the demolition of building B1 to provide access for the solar development. This could result in the destruction or the disturbance and subsequent abandonment of active bird nests.</p> <p>The proposed development will result in the loss of 0.073ha of modified grassland for construction of the solar development. This will result in the loss or obstruction (from solar panels) of some foraging habitat. However, due to the small scale of the</p>	<p>The demolition of B1 should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.</p>	<p>See 'Foreseen Impacts' column for the proposed compensation measures for the solar development included in the proposed plans.</p> <p>Any retained or enhanced grassland buffers around the solar panels would provide continued foraging opportunities for owls and raptors.</p>



	<p>form of one bird's nests present among the timber-frame structure within the gated car port.</p> <p>The modified grassland on site could provide foraging opportunities for raptors and owls (see Table 7).</p>	<p>development and the site, this is unlikely to have a significant impact. Furthermore, any retained grassland buffers around the solar panels could still be used for foraging.</p> <p>Proposed compensation measures for the solar development include the planting of additional native hedgerow to the north of the development, bolstering the existing native hedgerow to the south and wildflower planting within retained grassland. This will enhance the existing habitat available on site for nesting and foraging birds.</p>		<p>Additionally, the installation of a minimum of two bird boxes on mature trees around the site boundaries will provide additional nesting habitat for birds e.g. Vivara pro woodstone oval nest box Schwegler 2H Robin Boxes ( Woodstone Nest Box Or a similar alternative brand.</p> <p>Tree boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole.</p>
<p>Invertebrates</p>	<p>Habitats on site are considered suitable to support an invertebrate assemblage that is common and widespread only and are unlikely to be of particular habitat value to any specialist or notable species.</p>	<p>The proposed development will result in the loss of 0.073ha of modified grassland for construction of the solar development. The loss of such habitats is likely to be inconsequential to local invertebrate populations owing to the presence of more extensive habitat locally. As such, no impacts are anticipated on notable species or populations of invertebrates as a result of the proposed development.</p> <p>Proposed compensation measures for the solar development include the planting of</p>	<p>None.</p>	<p>See 'Foreseen Impacts' column for the proposed compensation measures for the solar development included in the proposed plans.</p> <p>Additionally, retention of any deadwood on the site will provide additional enhancements which would be beneficial for invertebrates.</p>

		additional native hedgerow to the north of the development, bolstering the existing native hedgerow to the south and wildflower planting within retained grassland. This will enhance the existing habitat available on site for invertebrates.		
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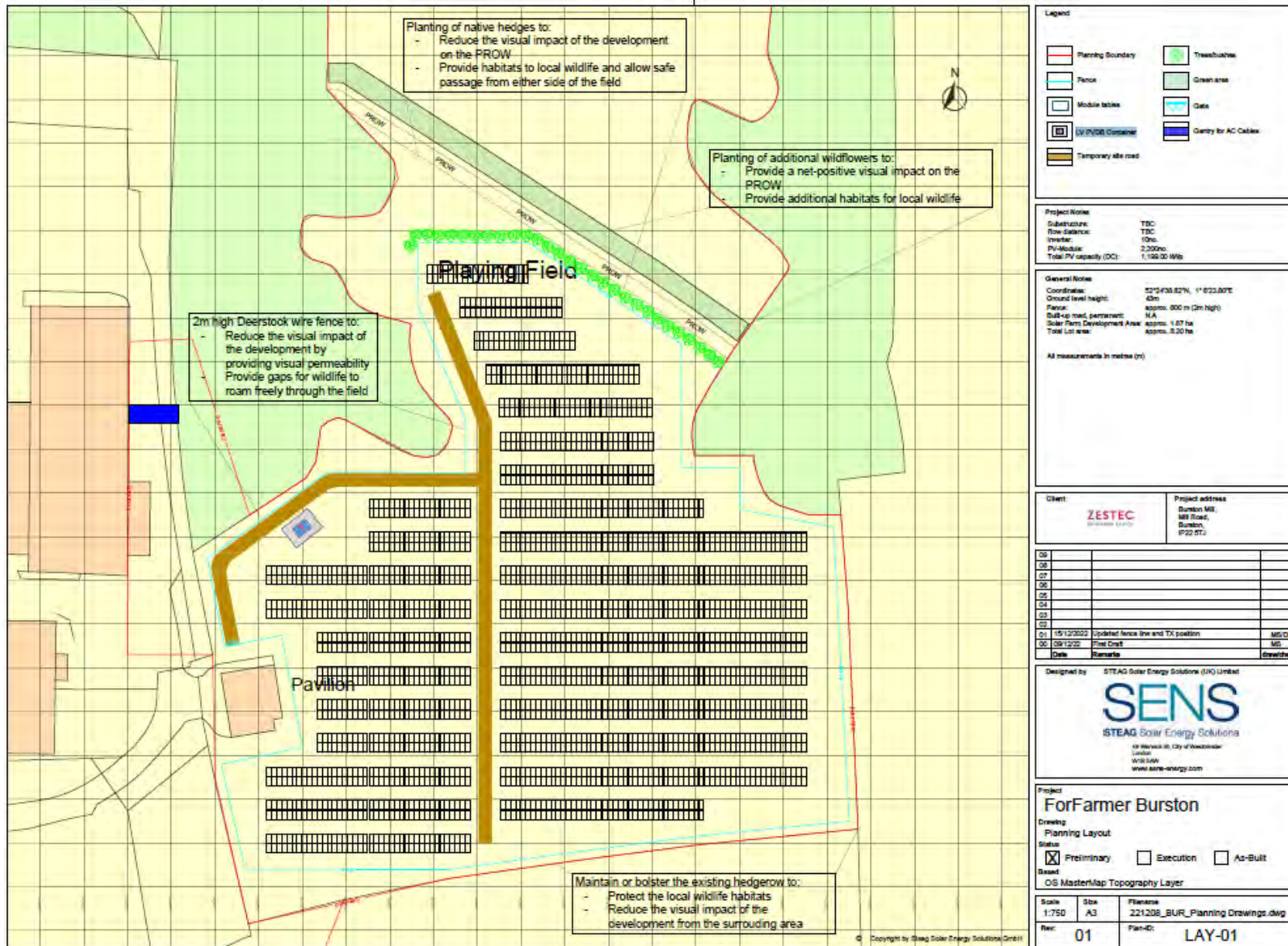
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### Appendix 1: Proposed Development Plan





### Appendix 2: Site Location Plan



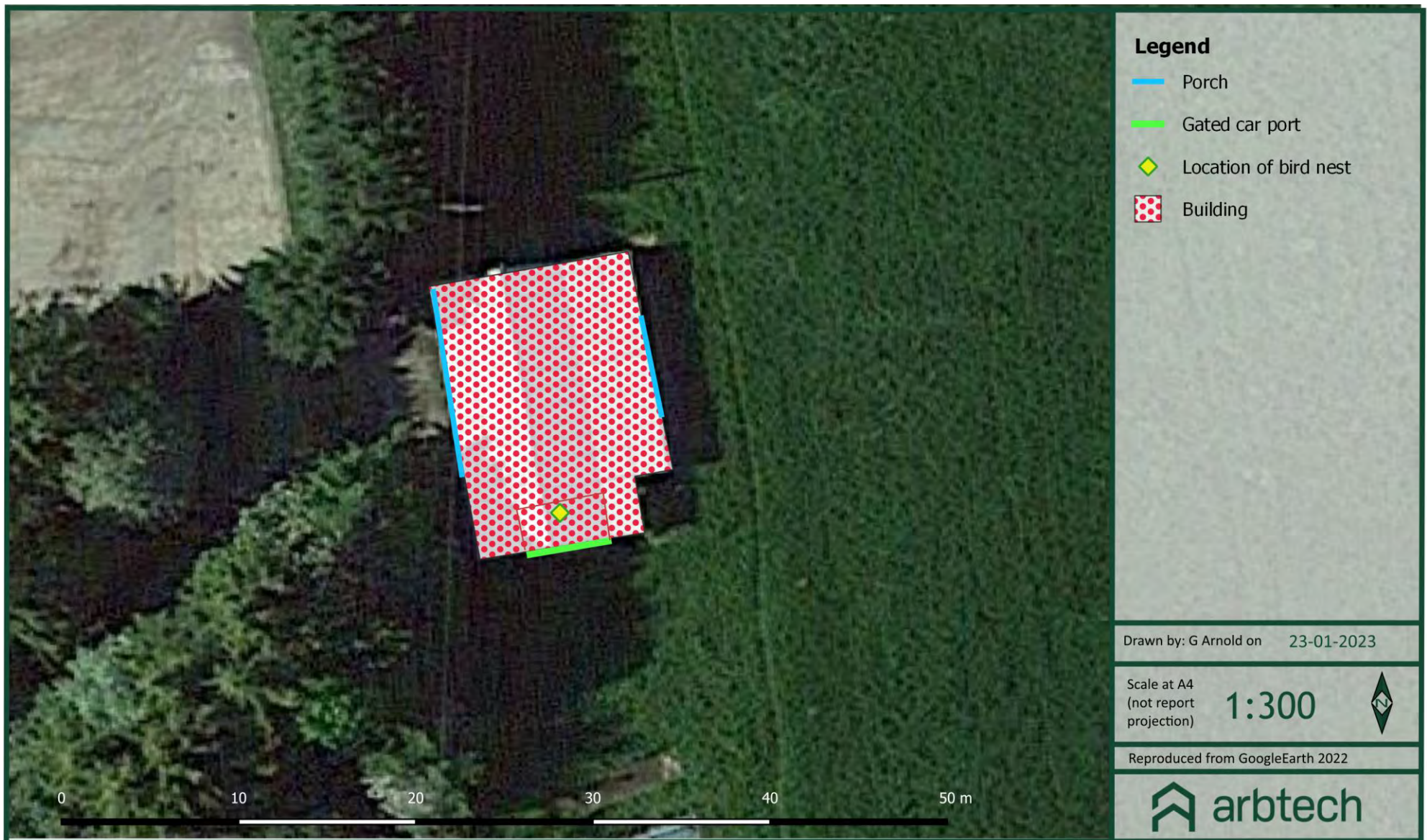


### Appendix 3a: Habitat Survey Plan





### Appendix 3b: PRA Survey Plan



## Appendix 4: Legislation and Planning Policy

### LEGAL PROTECTION

#### National and European Legislation Afforded to Habitats

##### ***International Statutory Designations***

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are sites of European importance and are designated under the EC Habitats Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive) and the EC Birds Directive 2009/147/EC on the conservation of wild birds (the Wild Birds Directive) respectively. Both form part of the wider Natura 2000 network across Europe.

Under the Habitats Directive Article 3 requires the establishment of a network of important conservation sites (SACs) across Europe. Over 1000 animal and plant species, as well as 200 habitat types, listed in the directive's annexes are protected in various ways:

**Annex II species** (about 900): core areas of their habitat are designated as Sites of Community importance (SCIs) and included in the Natura 2000 network. These sites must be managed in accordance with the ecological needs of the species.

**Annex IV species** (over 400, including many Annex II species): a strict protection regime must be applied across their entire natural range, both within and outside Natura 2000 sites.

**Annex V species** (over 90): their exploitation and taking in the wild is compatible with maintaining them in a favourable conservation status.

SPAs are classified under Article 2 of the Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds both for rare bird species (as listed on Annex I) and for important migratory species.

The Conservation of Habitats and Species Regulations 2017 (as amended) form the legal basis for the implementation of the Habitats and Birds Directives in terrestrial areas and territorial waters out to 12 nautical miles in England and Wales (including the inshore marine area) and to a limited extent in Scotland and Northern Ireland.

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and recognises the importance of wetland ecosystems in relation to global biodiversity conservation. The Convention refers to wetlands as “*areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres*”. However, they may also include riparian and coastal zones. Ramsar sites are statutorily protected under the Wildlife & Countryside Act 1981 (as amended 01.04.1996) with further protection provided by the Countryside and Rights of Way (CRoW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. The Government in England and Wales has issued policy statements which ensure that Ramsar sites are afforded the same protection as areas designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs). Further provisions for the protection and management of SSSIs have been introduced by the Nature Conservation (Scotland) Act 2004.

***National Statutory Designations***

Sites of Special Scientific Interest (SSSI) are designated by nature conservation agencies in order to conserve key flora, fauna, geological or physio-geographical features within the UK. The original designations were under the National Parks and Access to the Countryside Act 1949 but SSSIs were then re-designated under the Wildlife & Countryside Act 1981 (as amended). As well as reinforcing other national designations (including National Nature Reserves), the system also provides statutory protection for terrestrial and coastal sites which are important within the European Natura 2000 network and globally.

***Local Statutory Designations***

Local authorities in consultation with the relevant nature conservation agency can declare Local Nature Reserves (LNRs) under the National Parks and Access to the Countryside Act 1949. LNRs are designated for flora, fauna or geological interest and are managed locally to retain these features and provide research, education and recreational opportunities.

***Non- Statutory Designations***

All non-statutorily designated sites are referred to as Local Wildlife Sites (LWS) and can be designated by the local authority for supporting local conservation interest. Combined with statutory designation, these sites are considered within Local Development Frameworks under the Town and Country Planning system and are a material consideration during the determination of planning applications. The protection afforded to these sites varies depending on the local authority involved.

Regionally Important Geological Sites (RIGs) are the most important geological and geomorphological areas outside of statutory designations. These sites are also a material consideration during the determination of planning applications.

**The Hedgerow Regulations 1997**

The Hedgerow Regulations 1997 are designed to protect 'important' countryside hedgerows. Importance is defined by whether the hedgerow (a) has existed for 30 years or more; or (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys without the permission of the local authority. Hedgerows 'within or marking the boundary of the curtilage of a dwelling-house' are excluded.

### **National and European Legislation Afforded to Species**

#### ***The Conservation of Habitats and Species Regulations 2017 (as amended)***

The Conservation of Habitats and Species Regulations 2017 (as amended) aims to promote the maintenance of biodiversity by requiring the Secretary of State to take measures to maintain or restore wild species listed within the Regulations at a favourable conservation status.

The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.

#### ***The Wildlife and Countryside Act (WCA) 1981 (as amended)***

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1979, implemented 1982) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the birds Directive). The WCA 1981 has been subject to a number of amendments, the most important of which are through the Countryside and Rights of Way (CROW) Act (2000).

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

### ***Badgers***

Badgers *Meles meles* are protected under The Protection of Badgers Act 1992 which makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger
- Cruelly ill-treat a badger, including use of tongs and digging
- Possess or control a dead badger or any part thereof
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett or any part thereof
- Intentionally or recklessly disturb a badger when it is occupying a badger sett
- Intentionally or recklessly cause a dog to enter a badger sett
- Sell or offers for sale, possesses or has under his control, a live badger

Effects on development works:

A development licence will be required from the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) for any development works likely to affect an active badger sett, or to disturb badgers whilst they occupy a sett. Guidance has been issued by the countryside agencies to define what would constitute a licensable activity. It is no possible to obtain a licence to translocate badgers.

### **Birds**

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the WCA. Among other things, this makes it an offence to:

- Intentionally (or recklessly in Scotland) kill, injure or take any wild bird
- Intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built
- Intentionally take or destroy an egg of any wild bird
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.
- Intentionally or recklessly obstruct or prevent any wild bird from using its nest (Scotland only)

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and are commonly referred to as “Schedule 1” birds.

This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young
- Intentional or reckless disturbance of dependent young of such a bird
- In Scotland only, intentional or reckless disturbance whilst lekking
- In Scotland only, intentional or reckless harassment

Effects on development works:

Works should be planned to avoid the possibility of killing or injuring any wild bird or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Schedule 1 birds are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

**Amphibians and Reptiles**

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita*, pool frog *Pelophylax lessonae* and great crested newt *Triturus cristatus* receive full protection under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
  - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
  - To impair their ability to hibernate or migrate
  - To affect significantly the local distribution or abundance of the species
  - Damage or destruction of a breeding site or resting place

With the exception of the pool frog, these species are also listed on Schedule 5 of the WCA and they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of reptiles are protected solely under Schedule 5, Section 9(1) & (5) of the WCA, i.e. the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis*. It is prohibited to:

- Intentionally or recklessly kill or injure these species.

Effects on development works:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely to affect the breeding sites or resting places amphibian and reptile species protected under Habitats Regulations. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the WCA.

**Water Voles**

The water vole *Arvicola terrestris* is fully protected under Schedule 5 of the WCA. This makes it an offence to:

- Intentionally kill, injure or take (capture) water voles



- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection
- Intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection

Effects on development works:

If development works are likely to affect habitats known to support water voles, the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) must be consulted. It must be shown that means by which the proposal can be re-designed to avoid contravening the legislation have been fully explored e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable, and measures to ensure minimal habitat loss. Conservation licences for the capture and translocation of water voles may be issued by the relevant countryside agency for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will then only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of works.

### **Otters**

Otters *Lutra lutra* are fully protected under the Conservation Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
  - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
  - To impair their ability to hibernate or migrate
  - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Otters are also currently protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely to affect otter breeding or resting places (often referred to as holts, couches or dens) or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, and rear young). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored

**Bats**

All species are fully protected by Habitats Regulations 2010 as they are listed on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. All bats)
- Deliberate disturbance of bat species in such a way as:
  - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
  - To impair their ability to hibernate or migrate
  - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are afforded the following additional protection through the WCA as they are included on Schedule 5:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works are likely to affect a bat roost or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSM licence. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

**Hazel Dormice**

Hazel dormice *Muscardinus avellanarius* are fully protected under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
  - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
  - To impair their ability to hibernate or migrate
  - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Dormice are also protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection



Effects on development works:

Works which are liable to affect a dormice habitat or an operation which are likely to result in an illegal level of disturbance to the species will require a European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales (NB: Hazel Dormouse are entirely absent from Scotland)). The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

### ***White Clawed Crayfish***

There is a considerable amount of legislation in place in an attempt to protect the White-clawed crayfish *Austropotamobius pallipes*. This species is listed under the European Union's (EU) Habitat and Species Directive and is listed under Schedule 5 of the Wildlife and Countryside Act (1981). This makes it an offence to:

- Protected against intentional or reckless taking
- Protected against selling, offering or advertising for sale, possessing or transporting for the purpose of sale

It is also classified as Endangered in the IUCN Red List of Endangered Species. As a result of this and other relevant crayfish legislation such as the Prohibition of Keeping of Live Fish (Crayfish) Order 1996, a series of licences are needed for working with White-clawed and non-native crayfish. These are:

- A licence to handle crayfish (therefore survey work) in England
- A licence for the keeping of crayfish in England and Wales with an exemption for Signal crayfish (England).
- People in the post-code areas listed with crayfish present prior to 1996 do not need to apply for consent for crayfish already established. It does not, however, allow any new stocking of non-native crayfish into waterbodies. Consent for trapping of non-native crayfish for control or consumption is most likely to be granted in Thames and Anglian regions in the areas with "go area" postcodes.
- Harvesting of crayfish is prohibited in much of England and in any part of Scotland and Wales.

Effects on development works:

The relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will need to be consulted about development which could impact on a watercourse or wetland known to support white clawed crayfish. Conservation licences for the capture and translocation of crayfish can be issued if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of the works.

### **Wild Mammals (Protection Act) 1996**

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

### **Legislation Afforded to Plants**

With certain exceptions, all wild plants are protected under the WCA. This makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits any person from:

- Intentionally (or recklessly in Scotland) picking, uprooting or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only)
- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof
- In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. These are species of European importance. Regulation 45 makes it an offence to:
  - Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species
  - Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

Effects on development works:

A European Protected Species Licence (EPSL) will be required from the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) for works which are likely to affect species of planted listed on Schedule 5 of the Conservation or Habitats and Species Regulations 2010. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

### ***Invasive Species***

Part II of Schedule 9 of the WCA lists non-native invasive plant species for which it is a criminal offence in England and Wales to plant or cause to grow in the wild due to their impact on native wildlife. Species included (but not limited to):

- Japanese knotweed *Fallopia japonica*
- Giant hogweed *Heracleum mantegazzianum*
- Himalayan balsam *Impatiens glandulifera*

Effects on development works:

It is not an offence for plants listed in Part II of Schedule 9 of the WCA 1981 to be present on the development site, however, it is an offence to cause them to spread. Therefore, if any of the species are present on site and construction activities may result in further spread (e.g. earthworks, vehicle movements) then it will be necessary to design and implement appropriate mitigation prior to construction commencing.

### ***Injurious weeds***

Under the Weeds Act 1959 any landowner or occupier may be required prevent the spread of certain 'injurious weeds' including (but not limited to):

- Spear thistle *Cirsium vulgare*
- Creeping thistle *Cirsium arvense*
- Curled dock *Rumex crispus*
- Broad-leaved dock *Rumex obtusifolius*
- Common ragwort *Senecio jacobaea*

Effects on development works:

It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice as common ragwort is poisonous to horses and other livestock. This code provides best practice guidelines and is not legally binding.

## **NATIONAL PLANNING POLICY (ENGLAND)**

### ***Environment Act 2021***

The Environment Act 2021 (EA 2021) received Royal Assent on 9 November 2021 and is expected to become fully mandated within the next couple of years. The Act principally creates a post Brexit framework to protect and enhance the natural environment. Through amendments to the Town and Country Planning Act 1990, the Act will require all planning permissions in England (subject to exemptions which is likely to include householder applications) to be granted subject to a new general pre-commencement condition that requires approval of a biodiversity net gain plan. This will ensure the delivery of a minimum of 10% measurable biodiversity net gain. The principal tool to calculate this will be the Defra Biodiversity 3.0 Metric. Works to enhance habitats can be carried out either onsite or offsite or through the purchase of 'biodiversity credits' from the Secretary of State. However, this flexibility may be removed (subject to regulations) if the onsite habitat is 'irreplaceable'. Both onsite and offsite enhancements must be maintained for at least 30 years after completion of a development (which period may be amended).

***National Planning Policy Framework 2021***

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; measurable gains in biodiversity in and around developments are incorporated; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

***The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty***

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

**LOCAL PLANNING POLICY*****Adopted South Norfolk Local Plan***

The [local plan name] can be viewed here: <https://www.southnorfolkandbroadland.gov.uk/current-local-plan>

The following planning policies have implications in relation to biodiversity and the proposed development:

- **Policy DM 1.4 - Environmental quality and local distinctiveness:**
  - The Council will work with developers to promote and achieve high quality and positive environmental improvement from all development. All development proposals must demonstrate an understanding and evaluation of the important environmental assets including locally distinctive characteristics, and justify the design approach.
  - Designated assets will be protected in accordance with their natural and historic significance, as detailed in the Development Management Policies.
  - A net environmental improvement will always be sought and all proposals should avoid environmental harm or where this is not possible, adequately mitigate and compensate for the adverse environmental effects of development.
  - All development should take all reasonable opportunities to: i. Make a positive contribution to local character and distinctiveness; ii. Enhance biodiversity to achieve a net gain for nature; iii. To improve the resilience of ecosystems to environmental change including through the provision of improvements to

enhance identified environmental sites; stepping stones and corridors; iv. Protect environmental and water resources and enhance their efficient use; v. Deliver the provision of essential infrastructure including water and wastewater network upgrades, waste facilities', flood defences and green infrastructure; vi. Enhance, re-use and better reveal the significance of heritage assets; vii. Re-use buildings rather than demolish, recycle building materials and select materials to maximise environmental sustainability and minimise impact on scarce resources and environment; viii. Generate and utilise renewable energy in appropriate ways; and ix. Work with the characteristics of the location to ensure that the necessary mitigation measures are not disproportionate to the benefits of the scale of development proposed.

### ***Norfolk Biodiversity Action Plan***

The Norfolk Biodiversity Action Plan can be viewed here: <https://www.norfolkbiodiversity.org/>

The following habitats have been identified on or surrounding the site (based on the site survey and a review of the magic.gov.uk database) and are included in the plan:

- Hedgerows
- Ponds
- Cereal field margins

The following species could be present on the site or in the surrounding area (based on the site survey and a review of the magic.gov.uk database) and are included in the plan:

- Soprano pipistrelle bat, Noctule bat, Barbastelle bat, Brown long-eared bat, Great-crested newt, Song thrush,

### **EUROPEAN PROTECTED SPECIES POLICIES**

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.



The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.