

APPENDIX 2

Updated Preliminary Ecological Appraisal

PRELIMINARY ECOLOGICAL APPRAISAL

Sunny Oaks Renewable Energy Park
Wootton, Isle of Wight

Sunny Oaks Renewable Energy Park Ltd

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1 INTRODUCTION

1.1 Project Background

- 1.1.1 E3S Consulting Ltd (E3S) were engaged by Sunny Oaks Renewable Energy Park Ltd (The Client), to undertake an updated Preliminary Ecological Appraisal (PEA) in October 2024. The PEA is required to support the proposed planning application for the development of a Renewable Energy Park at Wootton (The Site). OS Grid Reference at approximate centre of site: SZ528908.

1.2 2024 Update

- 1.2.1 The PEA was initially undertaken in 2022 which identified the site as farmland consisting of improved grassland. The PEA also recognised the site's hedgerows and trees as providing important ecological corridors across the site which connect to the adjacent Fattingspark Copse, an ancient semi-natural woodland (ANSW), and Briddlesford Copses SSSI/SAC.
- 1.2.2 A site walkover was then undertaken in 2024 to assess whether there were any material changes which could impact the site's ecology and original conclusions. The updated walkover identified that some of the site's former grassland fields had converted to arable farmland for maize production. This is standard farming practice whereby fields are in rotation between grassland and arable production. Furthermore, the site's hedgerows and trees remain, providing ecological connectivity across the site as identified in 2022.
- 1.2.3 As the site's overall function as farmland and hedgerow network hasn't changed, the site's original conclusions regarding ecology remain unchanged.

1.3 Proposed Development

- 1.3.1 It is understood that the development proposal is for a solar park and battery energy storage system. The site plan is attached at the end of this report (**Figure 1**).
- 1.3.2 Parts of the site that will not be developed for the solar park and battery energy storage system will be used for ecological enhancements and mitigation measures.

1.4 Methodology

- 1.4.1 The desktop appraisal methodology establishes whether there are any ecological influences on the site. This includes searching for designated nature conservation areas e.g., statutory Sites of Special Scientific Interest (SSSI) or non-statutory Local Wildlife sites within a 1km radius of the site and, internationally important sites such as Special Areas of Conservation (SAC) or Special Protection Areas (SPAs).
- 1.4.2 Publicly available information relating to the known presence of notable species and/or habitats within the site's proximity is also selected at this stage. Following this, a site walkover assesses the potential for any identified ecological factors that could influence or be influenced by the Proposed Development. Any further assessment work is subsequently identified and scoped.

2 LOCAL AND NATIONAL POLICIES AND LEGISLATION

2.1 Local Planning Policy and Legislation

- 2.1.1 Policy DM12 of the Island Plan Core Strategy provides development control policy in relation to biodiversity. The council will support proposals that conserve, enhance and promote the landscape, seascape, biodiversity, and geological interest of the island. Development proposals are expected to:
- Protect the integrity of international, national and local designations relating to landscape, seascape,

biodiversity and geodiversity including the reasons for these designations, the weight given to them and, enhance their features of interest wherever possible;

- Ensure new development avoids both direct and indirect adverse effects upon the integrity of designated sites and if necessary, provides appropriate mitigation measures;
- Promote the maintenance and enhancement of the links between designated sites, especially through the provision of, and/or enhancement to, green infrastructure (GI) and appropriate local designations;
- Reflect the aims and objectives of the AONB Management Plan, the Council's Landscape Character Assessment, Historic Landscape Characterisation and any further relevant landscape assessment;
- Positively contribute to meeting the aims and objectives of the Isle of Wight's local Biodiversity Action Plan and Local Geodiversity Action Plan; and
- Minimise the threats and promote the opportunities arising from climate change on the island's landscape, seascape, biodiversity, and geodiversity.

2.2 Isle of Wight Biodiversity Action Plan (BAP)

2.2.1 Based on the above legislation, the Isle of Wight Council is committed to the following species action plans:

- Red squirrel (*Sciurus vulgaris*) has been identified by the UK Biodiversity Steering Group as a priority species for conservation action; and
- The woodland bat Habitat Action Plan (HAP) covers a suite of old forest bat species, which are dependent upon woodland and wood-pasture habitat for their survival.

2.2.2 And the following HAPs:

- Farmland Biodiversity - Farmland is not defined as a habitat in the UK BAP but contains a mosaic of different habitat types e.g., arable and horticulture, improved grassland, boundary and linear features, standing and open water. Collectively, these habitats can be of high biodiversity and nature conservation importance. A total of four broad habitat types identified in the UK BAP are found predominantly on farmland;
- Woodland Habitat - Identifies a total of six native woodland types as priority habitats, of which, three can be found on the Isle of Wight: lowland mixed deciduous woodland, wet woodland, wood pasture and parkland; and,
- Lowland Meadows Habitat - Lowland meadows have been selected as a HAP for the Isle of Wight. This is to ensure that national objectives for this priority habitat (identified under the UK BAP) are translated into effective action on the island, considering local issues.

3 SITE DETAILS

3.1 Site Walkover

3.1.1 For ease of reference, the site has been split into two distinct areas by Whiterails Road: **Area A** – solar panel installation area and **Area B** – battery energy storage system and associated infrastructure. The site area is 35.2ha.

3.1.2 **Area A** is further divided into 7 fields by hedgerows. Nine hedgerows were classified as species rich and five qualified as important. The fields were numbered from 1-7. Fields 1, 6, and half of Field 5 consist of species-poor improved grassland. The remaining fields 2, 3, 4, 7, and the other half of field 5 comprise arable farmland. Fields 2, 3, 7, and half of 5 were for maize production, and field 4 had grass sown in strips. Species identified within the improved grassland included white clover

(*Trifolium repens*), common chickweed (*Stellaria media*), dandelion (*Taraxacum officinale*), greater plantain (*Plantago media*), creeping buttercup (*Ranunculus repens*), and thistles (*Cirsium* spp.).

3.1.3 There is a distinct area (known as 'tussocky area' for ease of reference) within field 5 which is characterised by its cover of soft rush (*Juncus effusus*) and common fleabane (*Pulicaria dysenterica*). Within this area were patches of bramble (*Rubus fruticosus*), hawthorn (*Crataegus monogyna*), and blackthorn (*Prunus spinosa*) scrub, although bramble made up 75% of cover so has been classified as bramble scrub.

3.1.4 There was an area of bramble scrub within field 7 along its northern boundary.

3.1.5 To the west of **Area A** lies Fattingspark Copse, an ancient semi-natural woodland (ASNW).

3.1.6 **Area B** is also divided by hedgerows into smaller fields. Tall ruderal vegetation was identified along a species poor hedgerow. A tussocky area of grassland was located at the northern border of the area. Trees bordered the area with sections of deadwood along the eastern boundary. This area has been identified as agriculturally improved grassland. Deciduous woodland borders the area to the southwest. Running through **Area B** were some unidentified pathways, possibly attributable to mammals. Wootton Common Cemetery, an area of unimproved grassland is northeast of the area and indirectly connected via hedgerows.

3.1.7 The habitat surrounding the overall site consists of open farmland with areas of woodland. A solar farm is located to the west of the **Area A** and to the southeast of **Area B**.

3.2 Habitat Classification

3.2.1 The habitats present on-site have been defined using the UK Habitat Classification Key (UK Habitat Classification Working Group 2023). The following habitats were identified on-site:

- Cropland (c1c);
- Modified grassland (g4);
- Modified grassland with scattered rushes (g4~14);
- Hedgerows (h2); and
- Bramble scrub (h3d).

3.2.2 See **Figure 1** for the map of the site's habitat classification.

3.3 Public Records

3.3.1 Public records were assessed to include any recorded habitats or species on or near the site. Relevant SINC designations are presented below in **Table 1**.

Table 1: Sites of Importance to Nature Conservation (SINCs) within 1km of the site

Site/subsite code	Name	1a	1c	2a	2b	6a	6bi	6bii	6c	8a	Approx. distance from site (m)	Approx. direction	Connectivity to the site	Description
C219*/A	Quarrel's Copse	✓				✓	✓				315	Northeast	Indirect	Ancient Semi-Natural Woodland
C219*/B	Quarrel's Copse/Wootton Common			✓		✓	✓				785	North	Indirect	Unimproved Grassland

C127*/C	Staplers Heath			✓	✓						1,000	Southwest	No	Unimproved Grassland
C275*/A	Fattingpark Copse	✓	✓			✓			✓	✓	Adjacent	West	Direct connectivity to Area A	Ancient Semi-Natural Woodland
C293/A	Wootton Common Cemetery			✓						✓	80	Northeast	Indirect connectivity to Area B via hedgerows	Unimproved Grassland

*Sites partially within search area

3.3.2 Designation criteria

1a: All ancient semi-natural woodlands. This comprises all sites on the Natural England Provisional Ancient Woodland Inventory.

1c: Other semi-natural woodland, they comprise important community types of a restricted distribution in the country, particularly semi-natural wet woodlands and species-rich secondary woodlands.

2a: Agriculturally unimproved grassland. These grasslands are composed of an indigenous species assemblage in semi-natural communities. These assemblages have developed without the major use of herbicides and inorganic fertilisers. Moreover, they have benefitted without the added influence of processes such as ploughing, re-seeding and drainage management.

2b: Semi improved grassland. Supports an average of about 9 flowering plants per square metre, however these may be rarer on site as a whole or found in patches. Some of the UK's rarest and most threatened grassland species can be found. These indicate that the grassland has not been improved through intensive agricultural management.

6a: Species – Any site supporting a variable population of one or more species protected under The Habitats Regulations or listed in Schedules 1, 5 or 8 of the Wildlife and Countryside Act 1981 (as revised and amended) or in Red Data of Britain and Ireland.

6bi: Species – Nationally scarce in Britain.

6c: Any site that supports a significant proportion of the Island's population, or contributes significantly to the range in the Island, of a national BAP priority species, or a local BAP species which could be at risk because of very small populations, recent rapid decline, or habitat loss/decline.

8a: Social Value – A site which has value for the appreciation of nature.

3.4 Recorded Statutory Sites

3.4.1 Recorded Statutory Sites within 1km of the site were identified using the Isle of Wight Local Records Centre. Species records from The National Biodiversity Network Gateway were also referenced (www.data.nbn.org.uk). Further information was gathered on the designated sites using publicly available online resources. The information has been presented in **Table 2** below.

Table 2: Statutory Sites identified within 1km of the site

Statutory Sites	Name	Approx. distance from centre of site (m)	Approx. direction from site	Connectivity to site (Direct/Indirect/No)
SSSI	Briddlesford Copses	900	East	Indirect
SAC	Briddlesford Copses	900	East	Indirect
Areas of Ancient Woodland (ASNW)	Quarrel's Copse	315	Northeast	Indirect
	Fattingpark Copse	Adjacent	West	Direct

	Little Briddlesford Moor	937	Southeast	No
Area of Outstanding Natural Beauty	The Isle of Wight AONB	1,000	Southeast	No

4 PROTECTED AND NOTABLE SPECIES

4.1 Local Records

4.1.1 Local Records provide details of rare and protected species within 1km of the site, these records, along with an assessment of the relevance of the site to those species can be summarised as follows:

4.1.2 **Amphibians** - There are three records of common toad (*Bufo bufo*) and five records of common frog (*Rana temporaria*) within 1km of the site.

4.1.3 A toad was seen during a site visit within field 7. Several habitat features within **Area A** are suitable for amphibians including ditches, hedgerows, woodland edge, and scrub which could be used for sheltering, commuting, and foraging. There are no ponds onsite for breeding.

4.1.4 In **Area B**, the tall ruderals, hedgerows, and adjacent woodland also provide some suitable habitat. However, the site overall was considered sub-optimal habitat for amphibians due to agricultural farming practices.

4.1.5 Some hedgerow loss may occur to allow for an access tracks and power cable installation; however, overall hedgerow loss will be minimal (1.87%). Mitigation measures have been suggested where suitable habitat features may be impacted during the construction phase (see **Table 4**). For these reasons, further surveys have not been recommended but as a precaution, site workers should be given a toolbox talk, and an ecologist contacted if amphibians are discovered during site works.

4.1.6 Various ecological enhancements can be implemented as part of Proposed Development to attract amphibians to the site. Section 7 will outline these enhancements in detail.

4.1.7 **Badgers** -

4.1.8

4.1.9 Ecological enhancements have also been provided under section 7, which could increase foraging opportunities for this species.

4.1.10 **Bats** - LRC records have identified the following species of bats within 1km of the site: western barbastelle (*Barbastella barbastellus*), serotine (*Eptesicus serotinus*), Bechstein's bat (*Myotis bechsteinii*), brown long-eared bat (*Plecotus auritus*), common pipistrelle (*Pipistrellus pipistrellus*), and soprano pipistrelle (*P. pygmaeus*).

4.1.11 Common pipistrelles, serotines, noctules (*Nyctalus noctula*) and one barbastelle bat were detected during a bat transects which were undertaken in September 2021 and July 2022.

4.1.12 The hedgerows provide potential habitat for foraging and commuting bats as well as functional links to the adjacent woodland. Bats may also use the mature oak trees on-site as potential roosts. It is understood that these important ecological features are to be retained where practical, thus the development is considered unlikely to impact the site's overall foraging and roosting potential for bats. However, if trees are to be removed, then they should be inspected for bat roosting potential prior to removal.

- 4.1.13 There is anecdotal evidence to suggest that Bechstein’s bats are present within Fattingspark Copse. Furthermore, it is possible that Fattingspark Copse provides supporting habitat for the Briddlesford Copses SAC which is designated for its population of Bechstein’s bats. The site’s hedgerow along the northern boundary connects Fattingspark Copse and Briddlesford Copses SAC, thus, the site provides functionally linked land by means of a commuting corridor between Fattingspark Copse and Briddlesford Copses SAC. This hedgerow will be retained and managed appropriately to ensure that it continues to serve its function as a commuting route for Bechstein’s bats.
- 4.1.14 Mitigation measures have been recommended to minimise disturbance to any bat species during the construction phase.
- 4.1.15 The site can increase its foraging, commuting, and roosting potential for bats by implementing ecological enhancements post construction (see **Table 4**).
- 4.1.16 **Birds** - LRC data of bird species identified within 1km of the site include sparrowhawk (*Accipiter nisus*), reed warbler (*Acrocephalus scirpaceus*), common sandpiper (*Actitis hypoleucos*), kingfisher (*Alcedo atthis*), teal (*Anas crecca*), mallard (*Anas platyrhynchos*), brent goose (*Branta bernicla*), dark-bellied brent goose (*B. bernicla bernicla*), black-headed gull (*Chroicocephalus ridibundus*), woodpigeon (*Columba palumbus*), rook (*Corvus frugilegus*), little egret (*Egretta garzetta*), yellowhammer (*Emberiza citrinella*), pied flycatcher (*Ficedula hypoleuca*), moorhen (*Gallinula chloropus*), great northern diver (*Gavia immer*), oystercatcher (*Haematopus ostralegus*), swallow (*Hirundo rustica*), Mediterranean gull (*Ichthyaetus melanocephalus*), herring gull (*Larus argentatus*), common gull (*L. canus*), lesser black-headed gull (*L. fuscus*), bar-tailed godwit (*Limosa lapponica*), black-tailed godwit (*L. limosa*), linnet (*Linaria cannabina*), wigeon (*Mareca penelope*), common scoter (*Melanitta nigra*), grey wagtail (*Motacilla cinerea*), spotted flycatcher (*Muscicapa striata*), curlew (*Numenius arquata*), osprey (*Pandion haliaetus*), black redstart (*Phoenicurus ochruros*), redstart (*P. phoenicurus*), marsh tit (*Poecile palustris*), bullfinch (*Pyrrhula pyrrhula*), firecrest (*Regulus ignicapilla*), woodcock (*Scolopax rusticola*), shoveler (*Spatula clypeata*), starling (*Sturnus vulgaris*), shelduck (*Tadorna tadorna*), sandwich tern (*Thalasseus sandvicensis*), greenshank (*Tringa nebularia*), redshank (*T. totanus*), wren (*Troglodytes troglodytes*), song thrush (*T. philomelos*), and barn owl (*Tyto alba*).
- 4.1.17 Bird species identified so far onsite are listed in **Table 3** below:

Table 3: Bird Species Identified on the Proposed Development Site between 2022-2024

Species	LRC	PEA (2022)	Wintering bird survey (2022)	Breeding bird survey (2023)	PEA (2024)
Long-tailed tit (<i>Aegithalos caudatus</i>)		✓	✓	✓	
Skylark (<i>Alauda arvensis</i>)		✓	✓		✓
Red-legged partridge (<i>Alectoris rufa</i>)			✓		
Mallard	✓	✓			
Meadow pipit (<i>Anthus pratensis</i>)					✓
Buzzard (<i>Buteo buteo</i>)		✓	✓	✓	✓
Goldfinch (<i>Carduelis carduelis</i>)				✓	
Woodpigeon	✓	✓	✓	✓	✓
Rock dove (<i>Columba livia</i>)			✓		
Common whitethroat (<i>Curruca communis</i>)				✓	
Carrion crow (<i>Corvus corone</i>)		✓	✓	✓	
Blue tit (<i>Cyanistes caeruleus</i>)		✓	✓	✓	
Great spotted woodpecker (<i>Dendrocopos major</i>)				✓	
Robin (<i>Erithacus rubecula</i>)		✓	✓	✓	✓
Jay (<i>Garrulus glandarius</i>)				✓	
Swallow	✓			✓	✓
Gull (<i>Larus</i> sp.)	✓	✓	✓		
Great tit (<i>Parus major</i>)				✓	✓
House sparrow (<i>Passer domesticus</i>)		✓		✓	
Pheasant (<i>Phasianus colchicus</i>)			✓	✓	
Chiffchaff (<i>Phylloscopus collybita</i>)				✓	
Magpie (<i>Pica pica</i>)		✓	✓	✓	
Dunnock (<i>Prunella modularis</i>)			✓	✓	

Species	LRC	PEA (2022)	Wintering bird survey (2022)	Breeding bird survey (2023)	PEA (2024)
Blackcap (<i>Sylvia atricapilla</i>)				✓	
Wren	✓			✓	✓
Blackbird (<i>Turdus merula</i>)		✓	✓	✓	✓
Song thrush	✓	✓	✓	✓	
Mistle thrush (<i>Turdus viscivorus</i>)				✓	

- 4.1.18 The vegetation present on-site provides suitable habitat for nesting and foraging birds. These habitat features include the hedgerows, trees, grassland, and scrub, of which most of the trees and hedgerows are being retained. A buzzard's nest was identified on the woodland edge of Fattingspark Copse during the initial PEA site visit in 2022.
- 4.1.19 Scrub planting is recommended for the 15m buffer zone adjacent to Fattingspark Copse which would benefit species which like scrubby habitats and this would compensate for any potential loss of existing scrub. Anecdotal evidence suggests that species such as swallow and skylark are not deterred by solar panels; swallows have been observed foraging between arrays and skylarks displaying using the panels. An area adjacent to the site is proposed to remain panel free, thus retaining their open nature. Species which usually rely on open areas (such as skylark and buzzard) will still have open areas within vicinity of the site for breeding and foraging purposes.
- 4.1.20 For the construction to have minimal impact, mitigation measures have been recommended under section 7.
- 4.1.21 Ecological enhancements incorporated with Proposed Development can provide further habitat to support nesting, foraging and sheltering birds, increasing the site's value for bird species. These enhancements can also be found under section 7.
- 4.1.22 **Dormice** - There are four records of dormice (*Muscardinus avellanarius*) within 1km of the site.
- 4.1.23 However, dormice may be present in the woodlands connected to both areas, and the hedgerows and scrub on-site do provide connectivity to these woodlands. Hedgerow/scrub fingertip searches are recommended where the development proposal is to impact the scrub and hedgerows (see **Table 4**).
- 4.1.24 Ecological enhancements can increase the suite of food available on-site as well as reinforcing links to adjacent woodlands, in turn increasing the site's overall value for the local dormice population. These enhancements are discussed in further detail under section 7.
- 4.1.25 **Fish** – there are local records of European eel (*Anguilla anguilla*) within 1km of the site.
- 4.1.26 The site's ditches may provide habitat for this species and mitigation measures are recommended under section 7.
- 4.1.27 **Fungi** – violet webcap (*Cortinarius violaceus*), zoned tooth (*Hydnellum concrescens*), velvet tooth (*H. spongiosipes*), *Leccinum albostipitatum*, and black tooth (*Phellodon niger*) have been recorded within 1km of the site.
- 4.1.28 No protected species of fungi have been identified onsite.
- 4.1.29 **Invertebrates** - LRC records include species from the orders Diptera (true flies), Coleoptera (beetles), Lepidoptera (butterflies and moths), Odonata (dragonflies and damselflies), and Orthoptera (crickets and grasshoppers) within 1km of the site.
- 4.1.30 Although no invertebrates were identified during the site visit, the wildflowers, hedgerows, trees, and deadwood on-site provide potential habitat which could support various species of beetles, flies, moths, and butterflies. The Proposed Development will retain most of the hedgerows (98.13%) and trees (only 3 are proposed for removal due to disease or terminal decline) on-site, so no further

surveys for invertebrates have been recommended. However, mitigation measures will be required if the scrub and deadwood are to be removed during the construction phase of the development.

- 4.1.31 As part of the development, enhancements can be put in place which would attract a greater diversity of invertebrate species, thus improving the site's overall value to invertebrates. Details regarding the ecological enhancements and mitigation measures can be found under section 7.
- 4.1.32 **Lichens** – there are local records of *Enterographa sorediata* and *Lobaria pulmonaria* within 1km of the site. No protected species of lichen have been identified onsite.
- 4.1.33 **Mosses** – there are local records of Price-of-Wales feather-moss (*Neckera smithii*) within 1km of the site. No protected moss species have been identified onsite.
- 4.1.34 **Plants** - LRC records found orange foxtail (*Alopecurus aequalis*), quaking grass (*Briza media*), heather (*Calluna vulgaris*), common centaury (*Centaureum erythraea*), chaffweed (*Centunculus minimus*), small toadflax (*Chaenorhinum minus*), crosswort (*Cruciata laevipes*), bell heather (*Erica cinerea*), wild strawberry (*Fragaria vesca*), French oat-grass (*Gaudinia fragilis*), dyer's greenweed (*Genista tinctoria*), bluebell (*Hyacinthoides non-scripta*), marsh ragwort (*Jacobaea aquatica*), round-fruited rush (*Juncus compressus*), bitter-vetch (*Lathyrus linifolius*), water-purslane (*Lythrum portula*), common cow-wheat (*Melampyrum pratense subsp. pratense*), wood-sorrel (*Oxalis acetosella*), oak-leaved goosefoot (*Oxybasis glauca*), early meadow-grass (*Poa infirma*), tormentil (*Potentilla erecta subsp. erecta*), narrow-leaved lungwort (*Pulmonaria longifolia*), lesser spearwort (*Ranunculus flammula*), butcher's broom (*Ruscus aculeatus*), creeping willow (*Salix repens*), sanicle (*Sanicula europaea*), ragged-robin (*Silene flos-cuculi*), autumn lady's-tresses (*Spiranthes spiralis*), field woundwort (*Stachys arvensis*), devil's-bit scabious (*Succisa pratensis*), and heath speedwell (*Veronica officinalis*).
- 4.1.35 Butcher's broom was identified during the site visit in **Area A** during the initial site visit in March 2022. The hedgerow where this species was identified will be retained. Crosswort was also identified during site visits in 2023. A site walkover prior to construction is recommended to locate crosswort and translocate it if it is within the construction area.
- 4.1.36 A small proportion (1.87%) of the site's hedgerows will be lost to the Proposed Development. Compensatory hedgerow planting is proposed to infill gaps within hedgerows where access is not required. The overall function of the hedgerows as a commuting corridor network will not be impacted.
- 4.1.37 The Proposed Development will enhance the fields by sowing native wildflowers and grasses which will increase the site's botanical diversity. Please see **Appendix A** for the Biodiversity Net Gain (BNG) summary.
- 4.1.38 **Reptiles** - There are records of grass snake (*Natrix helvetica*) within 1km of the site.
- 4.1.39 No reptiles or evidence of reptiles were identified during the site visit. Most of the site is not structurally diverse enough to provide shelter or basking areas for reptiles. Further to this, arable fields are considered unsuitable for reptiles.
- 4.1.40 However, the tussocky/scrubby area identified in **Area A** does provide potential shelter and basking opportunities although it was considered too waterlogged for reptile species other than grass snakes. Additionally, grass snakes may use the area to access the adjacent woodland. They may also use the ditches and hedgerows for commuting and foraging.
- 4.1.41 The tussocky grassland in **Area B** could potentially provide shelter and basking sites for reptiles, and the hedgerows provide connectivity to Wootton Common Cemetery to the northeast, and deciduous woodland to the south.
- 4.1.42 Although the site currently has limited potential to support reptiles, they may use the site transiently to access neighbouring woodlands and use tussocky/scrub areas for basking. Mitigation measures

have been recommended where suitable habitat features may be lost due to the construction process. Any loss of suitable areas during the construction phase of the development will be compensated for through the site's ecological enhancement post construction.

- 4.1.43 Due to the site's current unfavourable condition together with the mitigation measures, no reptile surveys have been recommended. An ecologist should be informed immediately if reptiles are identified during the construction phase.
- 4.1.44 To increase the site's suitability for reptiles, ecological enhancements have been suggested and can be found alongside the mitigation measures in **Table 4**.
- 4.1.45 **Water voles** - There are no LCR records of water voles (*Arvicola amphibious*) within 1km of the site.
- 4.1.46 No signs of water voles were identified during the site walkover. The site has no water bodies considered suitable for water voles. Taking into consideration the absence of suitable habitat, and the absence of water vole records within 1km of the site, no further water vole surveys have been recommended.
- 4.1.47 **Other species** - LRC data search provided limited records of hedgehogs (*Erinaceus europaeus*) within 1km of the site, with 3 records of one hedgehog being on-site from 2005.
- 4.1.48 There were no signs of hedgehogs identified during the site-visit, although there were suitable habitat features present on-site. The hedgerows provide corridors and nesting sites for hedgehogs and the short grass to forage for invertebrates. There were some areas of leaf litter and decaying wood/vegetation, but these were small and isolated patches in relation to the overall site. Most of the hedgerows are to be retained and no further hedgehog surveys have been recommended. However, both mitigation measures and ecological enhancements have been recommended under section 7 so that suitable habitat remains on-site post construction.
- 4.1.49 There are various LRC records of red squirrels (*Sciurus vulgaris*) within 1km of the site.
- 4.1.50 Fattingspark Copse provides ideal habitat for red squirrels. The mature oak trees in **Area A** provide potential habitat as well as corridors to the adjacent copse. Red squirrels could also be present in the deciduous woodland of **Area B**, with links via the hedgerows. However, no evidence of red squirrels or their dreys were identified during the site visit. As the mature oak trees (except for one which will be removed due to terminal decline) will be retained as part of the development, no further surveys have been recommended.
- 4.1.51 Due to the presence of potential habitat, mitigation measures have been recommended under section 7. Furthermore, ecological enhancements could provide further habitat for red squirrels. This will be discussed in finer detail under section 7.
- 4.1.52 Brown hares (*Lepus europaeus*) have been identified within 1km of the site.
- 4.1.53 No signs of brown hare were identified during the site visit. However, brown hare habitat includes open arable grassland and woodland edges, so the site does provide suitable habitat. Mitigation measures have been recommended under section 7 so that development does not negatively impact the local hare population. Enhancements have also been recommended (see section 7) to increase foraging opportunities for this species.
- 4.1.54 **Invasive and non-native species** - The LRC have records have identified the following invasive and non-native plant species within 1km of the site: three-cornered garlic (*Allium triquetrum*), wall cotoneaster (*Cotoneaster horizontalis*), New Zealand pygmy weed (*Crassula helmsii*), montbretia (*Crocsmia pottsii x aurea = C. x crocsmiiflora*), and Japanese knotweed (*Fallopia japonica*).
- 4.1.55 No invasive and/or non-native plant species were identified during the site visit. During any works, on-site vigilance for the invasive/non-native species identified in this report should be maintained.

Optimum surveying period for flora is from April to September.

- 4.1.56 Invasive and non-native animal species recorded within 1km of the site identified by the LRC are ring-necked parakeets (*Psittacula krameria*).
- 4.1.57 There was one non-native species identified during the site-visit, which was not recorded in the LRC, pheasant (*Phasianus colchicus*). Species recorded in the LRC but not seen during the site-visit were ring-necked parakeets which can be seen all year round.

5 LIMITATIONS

5.1 General

- 5.1.1 The survey provides a single snapshot of the site and does not account for seasonal variation or species which may take up residence after the published report. Furthermore, lack of signs of a particular species does not confirm its absence, merely that there was no indication of its presence at the time of the site survey. However, the survey work undertaken does provide a baseline upon which further surveys, as well as various mitigation measures and ecological enhancements can be recommended to benefit wildlife.

5.2 Badgers

- 5.2.1 Although the site was examined for signs of badgers and their setts, there is no guarantee that sett entrances can be located, especially if the sett is currently inactive, seasonally used and/or concealed.

6 CONCLUSION

- 6.1.1 Ecologically important habitat features identified on-site include the hedgerows, deadwood, areas of scrub, and the mature oak trees. It is understood that the development will retain most of the hedgerows (98.13%) and mature oak trees on-site, other than where to allow for an access space. Mitigation measures and ecological enhancements have been recommended, as well as some further surveys where some ecological features are being impacted.
- 6.1.2 Surveys undertaken to date include, bat transect surveys, hedgerow surveys, and bird surveys. An Ecological Impact Assessment (EcIA) has been undertaken for the site.
- 6.1.3 The site has direct and indirect ecological links to surrounding areas, including designated sites. These are Fattingspark Copse, Briddlesford Copses, Quarrel's Copse, and Wootton Common Cemetery. The Proposed Development aims to protect and strengthen these ecological links so that species dispersal as well as foraging range is not impacted. The Proposed Development will do this through the planting and maintenance of existing hedgerows on-site. Furthermore, a 15m buffer zone between **Area A** and Fattingspark Copse will protect the ASNW from development during the construction phase as well as creating an ecologically important transitional habitat mosaic post development.
- 6.1.4 The Proposed Development aligns with the Island's BAP, in that it will avoid impacts to red squirrels, woodland bats, and the lowland mixed deciduous woodland. The Proposed Development aims to strengthen connectivity throughout the site through tree planting, which would benefit both red squirrels and tree roosting bats. The 15m buffer between the site and the lowland mixed deciduous woodland (Fattingspark Copse) is sufficient as to avoid negative impacts. Planting within the 15m buffer zone would create a transitional habitat which would benefit many species by creating microhabitats leading from grassland to woodland. This lowland mixed deciduous woodland is also a designated site known as Fattingspark Copse, also recognised as ASNW. Again, this 15m buffer would be sufficient as to protect this designated site. The Proposed Development includes the management, and re-planting of hedgerows which will ensure that these fundamental ecological links are retained, especially where they link to designated sites. The Proposed Development itself aims to provide green energy for islanders, which is a positive step towards combating climate change risks. Overall, the Proposed Development aligns with the Isle of Wight's BAP and NPPF.

7 MITIGATION MEASURES AND ECOLOGICAL ENHANCEMENTS

7.1.1 The table below shows various mitigation measures and ecological enhancements that can be implemented as part of the development. The ecological enhancements will benefit wildlife by creating more ecological niches than are currently present.

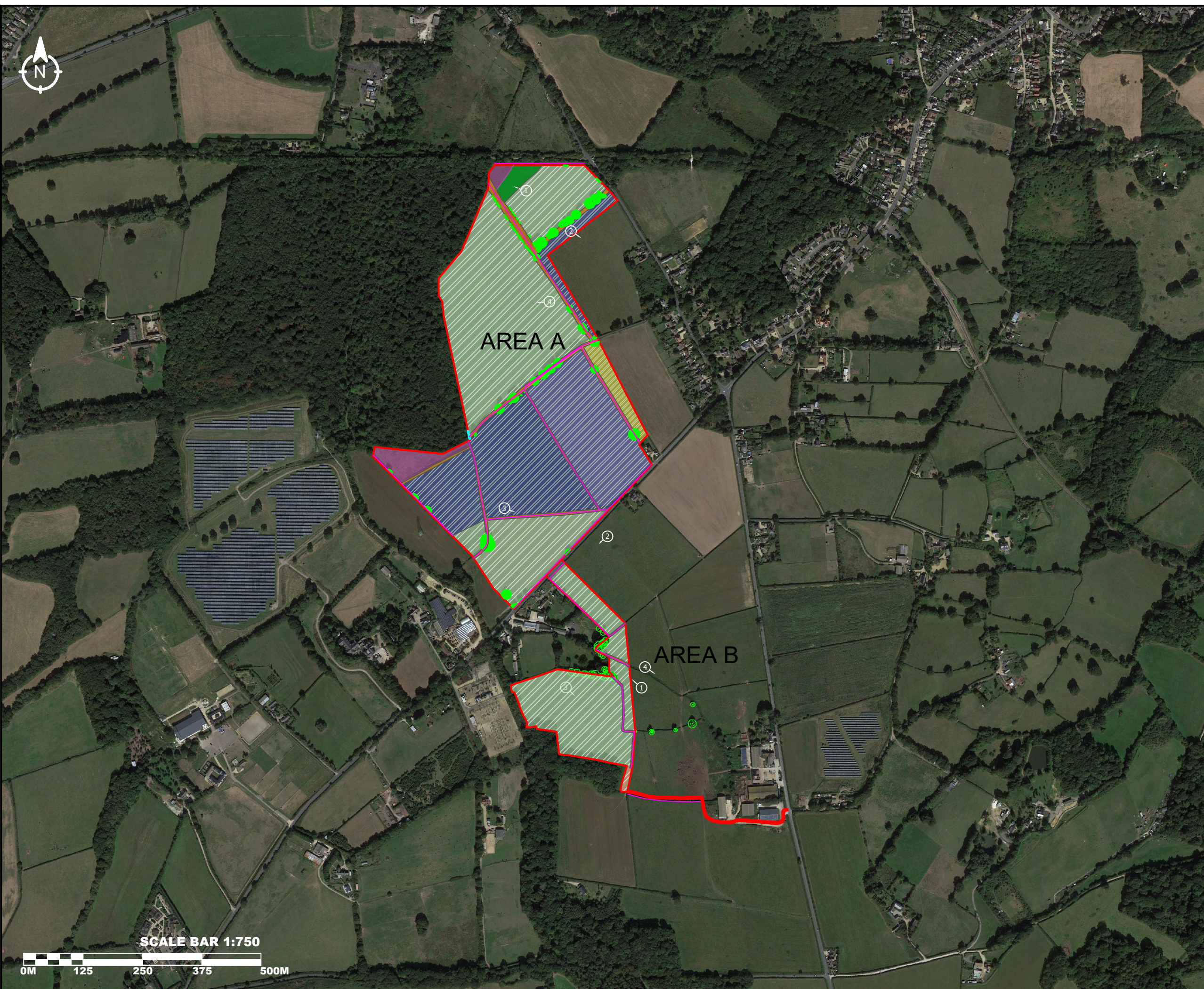
Table 4: *Proposed mitigation measures and ecological enhancements for the benefit of wildlife*

Protected and notable species	Mitigation measures	Ecological enhancements
Amphibians	Retain the scrub and include 15m buffer zones between the construction site and woodland edges.	Allowing the vegetation to grow during the spring and summer and planting a native tussocky area should provide additional sheltering and feeding opportunities for amphibians. The loss of tall ruderals and tussocky areas during the construction phase will be compensated for by establishing a tall ruderal/tussocky area post-construction. Field margins should also be less regularly managed for a tussocky habitat to establish which would benefit amphibians. Reinforcing hedgerow corridors by planting additional native tree species will be beneficial to amphibians using the hedgerows to access neighbouring woodlands as well as providing places to shelter. The additional plant species attracting invertebrates should provide greater foraging opportunities for amphibians. Log piles can also provide shelter and foraging opportunities for amphibian species.
Badgers	Gaps along the bottom of security fencing so that accessibility is not affected by the development.	Additional hedgerow and tree/woodland planting will provide foraging and sheltering opportunities as well as connectivity for commuting badgers.
Bats	Conducting works during daylight hours, and if not possible, selecting LED sensor operated downward facing, hooded and low-level lights to minimise disturbance to commuting and foraging bats which are active outside of daylight hours. Any artificial lighting used during the operational phase should be compliant with bat sensitive lighting.	Additional tree and hedgerow planting should provide more opportunities for roosting and foraging, as well as reinforcing the connectivity to the adjacent woodland and wider landscape. Installing bat boxes will provide additional opportunities for roosting bats.
Birds	At the onset of the construction phase, fields should be cut to ground level prior to March 1 st (beginning of bird nesting season) to prevent ground nesting birds establishing nests. Retention of scrub areas. Where scrub and/or hedgerows are being removed, this should be conducted outside of bird nesting season (March-August inclusive).	Post construction, planting of native grasses, wildflowers, scrub, hedgerows, and trees will provide shelter for ground nesting and tree nesting birds. The additional vegetation should also provide plenty of foraging opportunities. Site management post construction should also allow vegetation to grow in spring and summer so that ground nesting birds are sheltered. Bird boxes on trees can provide extra places for birds to nest.
Dormice	Retaining scrub on-site. Where hedgerow is being removed, a visual/fingertip search for dormice nests and opened hazelnuts may be necessary.	Additional hedgerow planting with native species e.g., hazel, will benefit dormice by providing a larger suite of food necessary to support this species. Hazel trees should be coppiced as this is most beneficial to dormice. Reinforcing the hedgerows will also strengthen the corridor network to the adjacent woodlands. These enhancements should encourage dormice to the area by providing sheltering, nesting, and foraging opportunities.
Fish	CEMP to protect ditch.	Appropriate ditch management.
Invertebrates	Retain the scrub and deadwood on-site. If deadwood needs to be moved, then it should be relocated to a shady area as close to its place of origin as possible.	Planting a native grass and wildflower species mix, suitable for the area, around the solar panel arrays. This should provide plenty of foraging opportunities for various invertebrate species. Various sward heights can maximise niches and microhabitats for invertebrates. Planting additional tree species will provide additional habitat for invertebrates to forage, shelter, hibernate and breed. Installing deadwood features and allowing wood to decay on-site would tremendously benefit invertebrate species, including the scarce stag beetle (<i>Lucanus cervus</i>), which relies on decaying wood to complete its life cycle.
Plants	Retain hedgerow where butcher's broom is located and identify areas of crosswort. Translocate crosswort if necessary.	Planting native grasses, wildflowers and trees should diversify the current arable grassland, making it more attractive to wildlife.
Reptiles	Retention of scrub on-site. If this is to	Installing log piles and/or other refugia near to scrub will provide










Protected and notable species	Mitigation measures	Ecological enhancements
	be affected during construction, a staged clearance should be undertaken to allow species to seek refuge off site and recolonise site post works.	places for reptiles to shelter. <u>Note:</u> these should not be placed in areas that are waterlogged. The loss of tall ruderals and tussocky areas during the construction phase will be compensated for by establishing a tall ruderal/tussocky area post-construction. Allowing vegetation to grow to provide basking areas, especially next to scrub/hedgerows. Field margins outside of security fencing should be less regularly managed for a tussocky habitat to establish which would be valuable to reptiles.
Other species	Leaving areas of decaying wood and allowing gaps along security fencing so that animals can access the site and surrounding landscape. 15m buffer to protect the Fattingspark woodland edge.	Sowing of native grass and wildflower mix will attract food sources upon which various mammal species can forage, as well as providing shelter and nesting materials. Field margins outside of security fencing should be less regularly managed for a tussocky habitat to establish which small mammals can utilise. Additional planting of native trees will be beneficial to red squirrels as a place to forage and build their dreys. The loss of tall ruderals and tussocky areas during the construction phase will be compensated for by establishing a tall ruderal/tussocky area post-construction.

Table 5: Site photograph ID with descriptions

Site photograph ID	Description
Area A photograph 1	Tussocky field with bramble scrub and view of Fattingspark Copse
Area A photograph 2	Modified grassland with scattered trees
Area A photograph 3	Drainage ditch with hedgerow
Area A photograph 4	Modified grassland with gappy, species poor hedgerow
Area B photograph 1	Fallen tree and area of deadwood
Area B photograph 2	Small area of tussocky grassland and species poor hedgerow
Area B photograph 3	Unidentified pathway
Area B photograph 4	Area of tall ruderal vegetation along species poor hedgerow



NOTES:
 TO SCALE AT 1:750 @ A3.
 MAP OF THE SITE DISPLAYING DIFFERENT HABITAT TYPES FOUND WITHIN ITS BOUNDARY. CLASSIFIED TO THE UK HABITAT CLASSIFICATION 2023 (V2) CODES.
 INCLUDES DATA RELATING TO FIGURE 2 - SITE PHOTOGRAPHS.
 TOTAL AREA OF THE SITE APPROXIMATELY 330,000M² / 33 HECTARES.

- KEY:**
-  - MODIFIED GRASSLAND (G4)
 -  - MODIFIED GRASSLAND WITH SCATTERED RUSHES (G4-14)
 -  - CEREAL CROPS (C1C)
 -  - NON-CEREAL CROPS (C1D)
 -  - BRAMBLE SCRUB (H3D)
 -  - NATIVE HEDGEROW WITH TREES (H2A)
 -  - INDIVIDUAL TREES
 -  - PHOTO LOCATION AND DIRECTION (SEE FIGURE 2)
 -  - SITE BOUNDARY



CLIENT: SUNNY OAKS RENEWABLE ENERGY PARK LTD

SITE: SUNNY OAKS RENEWABLE ENERGY PARK, WOOTTON COMMON, ISLE OF WIGHT.

TITLE: FIGURE 1 - HABITAT CLASSIFICATION

AUTHOR: HO

PROJECT REF: NN1418	DATE: OCTOBER 2024 TO SCALE 1:750 @ A3.
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Area A (North)

1



2



3



4



Notes:

Photographs taken during site visit, highlighting areas of ecological interest.

Area B (South)

1



2



3



4



CLIENT: Ridge Clean Energy LTD

SITE: Sunny Oaks Renewable Energy Park LTD

AUTHOR: HO

TITLE: Figure 2 - Site Photographs

PROJECT Number: NN 1418

DATE: March 2022
Not To Scale

APPENDIX A

Biodiversity Net Gain Technical Summary

1 BIODIVERSITY NET GAIN ASSESSMENT

- 1.1.1 The Biodiversity Net Gain Assessment (BNG) demonstrates how the Proposed Development at Sunny Oaks Renewable Energy Park would provide BNG compared to the existing site. To achieve BNG, an assessment of the existing on-site habitats, proposed losses and post-intervention provision was undertaken using the Defra Biodiversity Metric 4.1 Calculation Tool.
- 1.1.2 The Headline Results Summary (reproduced below) shows that the proposed landscaping will result in a net biodiversity gain of 134.67% for habitat units and 20.37% for hedgerow units; thus, exceeding the minimum recommendation target of 10% net gain.

SUNNY OAKS RENEWABLE ENERGY PARK		Return to results menu	
Headline Results			
Scroll down for final results ▲			
On-site baseline	Habitat units	88.31	
	Hedgerow units	32.35	
	Watercourse units	0.00	
On-site post-intervention <small>(including habitat retention, creation & enhancement)</small>	Habitat units	207.24	
	Hedgerow units	38.94	
	Watercourse units	0.00	
On-site net change <small>(units & percentage)</small>	Habitat units	118.93	134.67%
	Hedgerow units	6.59	20.37%
	Watercourse units	0.00	0.00%
Off-site baseline	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention <small>(including habitat retention, creation & enhancement)</small>	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change <small>(units & percentage)</small>	Habitat units	0.00	0.00%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Combined net unit change <small>(including all on-site & off-site habitat retention, creation & enhancement)</small>	Habitat units	118.93	
	Hedgerow units	6.59	
	Watercourse units	0.00	
Spatial risk multiplier (SRM) deductions	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	

- 1.1.3 The overall net gain was achieved by mitigating the total loss of current on-site habitats (improved grazed/arable farmland, scrub, and short sections of hedgerow), with creation of appropriate habitat to achieve a biodiversity gain. The proposal consists of the development of new habitats which include mixed native boundary scrub, other neutral grassland, tree planting, and replacement and enhancement of hedgerows with native species.
- 1.1.4 The results show that the Proposed Development, with ecological enhancements, will be beneficial to wildlife and thus can be concluded that it will not have a negative impact on the site's habitats, species, and ecosystems, but will provide a significant gain for biodiversity.

2 CONCLUSION

- 2.1.1 The proposed Sunny Oaks Renewable Energy Park Development layout has benefited from proactive and early engagement by the client in relation to design specifications for habitat BNG. The adoption of both multi-disciplined input and a unifying design focus by the client has enabled substantial gain opportunities to be incorporated. The outcome of this process avoids negative ecological impacts and greatly enhances biodiversity as an integral part of the development. The approach has also had the added benefit of minimising any predicted time-lag between potential losses and gains which forms a metric component of the biodiversity calculation.
- 2.1.2 The Proposed Development includes restoration and enhancement of habitat on-site which will rejuvenate ecosystem composition, structure, and function increasing ecological diversity and suitability for protected species. Thus, with wildlife focused management at its core, the Proposed Development would increase the site's biodiversity compared to its current agricultural land use.