Rosefield Solar Farm

Environmental Statement

Volume 4 Appendix 7.7: Preliminary Ecological Appraisal (2025)

EN010158/APP/6.4 September 2025 Rosefield Energyfarm Limited APFP Regulation 5(2)(a)
Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Table of Contents

1.	1. Introduction		
	1.1.	Purpose of this report	1
	1.2.	Project overview	1
2.	Met	hods	3
	2.1.	Introduction	3
	2.2.	Background data search	3
	2.3.	Plants and habitats	6
	2.4.	Protected and notable animals	8
	2.5.	Constraints and limitations	.10
3.	Res	ults	12
	3.1.	Background data search	12
	3.2.	Plants and habitats	18
	3.3.	Protected and notable animals	25
4.	Eva	luation	31
	4.1.	Internationally designated sites	31
	4.2.	Sites of special scientific interest	31
	4.3.	Non-statutory designated sites	.31
	4.4.	Habitats and plants	.32
	4.5.	Terrestrial invertebrates	33
	4.6.	Great crested newt	33
	4.7.	Reptiles	33
	4.8.	Birds	33
	4.9.	Bats	.34
	4.10	Dormice	.34
	4.11.	Water vole and otter	.34
	4.12	Badger	.34
	4.13	Other notable species	.35
	4.14	Validity of data	.35
5.	Rec	ommendations	36
	5.1.	Key constraints to design and construction	.36
	5.2.	Further surveys required	.36
	5.3.	Mitigation requirements	.37
	5.4.	Opportunities for enhancement	.37
6.	Ref	erences	38

Annex B – Nature conservation legislation and policy	81
Aimox B Hatare concervation legislation and policy	
Annex C – Noteworthy species records	92
Annex D – Glossary, abbreviations and acronyms	112
Annex E – Target notes	114
Annex F – Hedgerows regulations assessment details	146
Annex G – Site photographs	209



1. Introduction

1.1. Purpose of this report

- 1.1.1. This report presents the results of a preliminary ecological appraisal (PEA), comprising a background data search, a UK habitat survey (UKHab), with assessment for protected or otherwise notable species and hedgerows regulation assessment at the proposed Rosefield Solar Farm development (central Grid Reference SP729231). The survey area included the land within the Site Boundary (the Site), the Site and survey area are shown in **Figure 1**.
- 1.1.2. The report identifies ecological constraints relevant to the Proposed Development, specifies any further survey or mitigation requirements (e.g. for any Ecological Impact Assessment), gives recommendations for avoidance and protection through design changes, and suggests opportunities for ecological enhancement, in particular to deliver biodiversity net gain.

1.2. Project overview

- 1.2.1. Rosefield Solar Farm is a proposed solar farm with energy storage which will generate and store renewable electricity for export to the National Grid. The main features of the Proposed Development consists of the following elements:
 - Solar PV development consisting of:
 - Ground mounted Solar PV generating station. The generating station would include Solar PV modules and mounting structures; and
 - Balance of Solar System (BoSS) which comprises: Inverters;
 Transformers; Switchgear; Combiner Boxes; acoustic barriers and cabling.
 - A project substation (the 'Rosefield Substation') compound comprising: Transformers; Switchgear; reactive power compensation bays; disconnectors; circuit breakers; busbars; control equipment; lightning surge arrestors; building(s) including office, control, functions, material storage, material laydown areas and welfare facilities; firewalls; fencing and acoustic barriers; a security cabin; parking as well as wider monitoring, maintenance and emergency equipment;
 - A Main Collector Compound and two Satellite Collector Compounds comprising: Switchgear; Transformers; ancillary equipment; operation and maintenance and welfare facilities; material storage; material laydown areas; fencing and acoustic barriers; and security cabins;
 - Battery Energy Storage System (BESS) compound comprising: batteries and associated Inverters; Transformers; Switchgear, ancillary equipment and their containers; office, control and welfare buildings;



fencing and acoustic barriers; monitoring, maintenance and emergency systems; air conditioning; electrical cables; fire safety infrastructure; operation (including maintenance) security facilities; material storage; and material laydown areas;

- Interconnecting Cabling Corridor(s) to connect the Solar PV modules and the BESS to the Satellite and Main Collector Compounds to the Rosefield Substation:
- A Grid Connection Cable Corridor to connect the Rosefield Substation to the National Grid East Claydon Substation via 400kV cabling;
- Ancillary infrastructure works comprising: boundary treatment; security
 equipment; lighting; fencing; landscaping; internal access tracks; works
 to facilitate vehicular access; earthing devices; earthworks; surface
 water management; utility connections and diversions; and any other
 works identified as necessary to enable the Proposed Development;
- Green and blue infrastructure, recreation and amenity works comprising: landscaping; habitat management; biodiversity enhancement; the creation of three permissive footpaths; and works to permanently divert four public right of way footpaths in five instances;
- Site-wide operational monitoring and security equipment; and
- Highways infrastructure improvements and safety works comprising: minor junction improvement works; road widening; passing places; and works to facilitate vehicular access to the Site.



2. Methods

2.1. Introduction

- 2.1.1. The PEA was undertaken in line with guidance from the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017); it therefore included:
 - a desk study (here called a background data search (BDS)), which included a review of aerial photographs; obtaining information from the Defra and JNCC websites, and the local authority website; requesting data from the local records centre); and
 - a field survey that informed habitat mapping, an assessment of the possible presence of protected or priority species and the likely importance of habitat features.
- 2.1.2. The PEA report includes an ecological description of the Site and information about species that may occur there. Notes and mapping of any incidental sightings of invasive non-native plant species and protected or priority fauna species are also provided.
- 2.1.3. Due to access constraints, it was not possible to complete the PEA in one go, therefore the survey was carried out between June and July 2023, October 2023, January 2024, May 2024 and April 2025 by suitably qualified and experienced ecological consultants, who are members of CIEEM, and experienced in carrying out preliminary ecological appraisals.

2.2. Background data search

2.2.1. A search was made in August 2023 for relevant reference materials with an updated search for non-statutory sites being undertaken in April 2025. A list of sources is given in **Table 1**.

Table 1: Data sources

Information obtained	Available from
Protected and noteworthy species-records	Buckinghamshire and Milton Keynes Environmental Record Centre
MAGIC (the Multi-Agency Geographic Information website) to view statutory designated nature conservation sites	www.magic.gov.uk [NB: this site is included for convenience as a viewer, but data to create maps for any figures used is extracted from Open Source data provided by the SNCBs]
Nationally designated site locations and citations	Natural England website



Information obtained	Available from
European and Internationally designated site locations and citations	Joint Nature Conservation Committee (JNCC) website
Local Designated site locations and citations	Buckinghamshire and Milton Keynes Environmental Record Centre
Designations and legal protection of noteworthy species	Joint Nature Conservation Committee (JNCC) website
Details of species and habitats	Local biodiversity action plan website
listed on the LBAP	https://bucksmknep.co.uk/forward-to-2030/
Local planning guidance and	National Habitat Networks
policies	https://www.data.gov.uk/dataset/0ef2ed26- 2f04-4e0f-9493-ffbdbfaeb159/habitat- networks-england
	National Priority Focus Areas
	https://www.data.gov.uk/dataset/c20a40c5- c975-43e1-9abd-d1257aa58432/natural- england-national-priority-focus-areas
	Nature Improvement Areas
	https://www.data.gov.uk/dataset/a19c95e3- 9657-457d-825e-3d2f3993b653/nature- improvement-areas
	Vale of Aylesbury Local Plan (VALP) 2013- 2033
	https://www.buckinghamshire.gov.uk/planning- and-building-control/planning-policy/local- development-plans-and-guidance/local- development-plans/
	Buckinghamshire Local Plan
	https://www.buckinghamshire.gov.uk/planning- and-building-control/local-development-plans- info/buckinghamshire-local-plan/
	Buckinghamshire & Milton Keynes Biodiversity Action Plan
	https://bucksmknep.co.uk/forward-to-2030/



Information obtained	Available from
Aerial photography	As a viewer only, sources include: www.google.com; www.bing.com; Google earth. Where reproduced as figures, sources vary and be licensed through ArcGIS, as stated.

- 2.2.2. A search was made for the following international and national statutory designated sites of ecological importance within 10km of the Order Limits: Ramsar sites, Special Areas of Conservation (SAC), Special Protection Areas (SPA)¹, and for Sites of Special Scientific Interest (SSSI), including consideration of SSSI risk zones, within 2km.
- 2.2.3. A search was also made for non-statutory designated (often important in a local context) within 2km of the Order Limits. A search was also made for non-statutory designated (often important in a local context) within 2km of the Order Limits. The distances were selected due to the habitats within the Site being functionally linked to habitats in the wider area which are considered suitable and are known to support a range of protected and notable species.
- 2.2.4. The BDS also included a search for records within 2km of the Order Limits of noteworthy species, which might pose a constraint to the Proposed Development. Species included in the search were:
 - European protected species (listed on Schedules 2 and 5 of The Conservation of Habitats and Species Regulations 2017 (as amended));
 - Nationally protected species under Schedules 1, 5 and 8 of The Wildlife & Countryside Act 1981 (as amended) and The Protection of Badgers Act 1992:
 - Species listed as critically endangered, endangered or vulnerable based on the IUCN Red List Categories and Criteria 2001;
 - All species listed on the Birds of Conservation Concern 5 (Stanbury et al., 2021) as red' or 'amber';
 - Nationally rare or nationally scarce species;
 - Notable invertebrates²: and

Application Document Ref: EN010158/APP/6.4 Planning Inspectorate Scheme Ref: EN010158

5

¹ SACs and SPAs were formerly called 'European Sites' and part of the Natura 2000 network; post-'Brexit', they are now considered part of the UK's 'national site network'. Ramsar sites are sites of international importance. See **Annex B** for details. Note that SPAs, SACs and Ramsar sites are also underpinned by SSSI designations whose citations/boundaries may be slightly different.

² **Annex D** includes a description of 'notable' as used in this context.



- Species of principal importance listed under The Natural Environment and Rural Communities (NERC) Act 2006 or priority species under the relevant local biodiversity action plan.
- 2.2.5. The following reports relating to the Proposed Development were reviewed:
 - Rosefield Solar Farm Preliminary Ecological Appraisal (AECOM, February 2022);
 - Rosefield Solar Farm Badger Survey Report (Confidential) (AECOM, June 2022);
 - Rosefield Solar Farm Bat Preliminary Roost Assessment Report (AECOM, August 2022);
 - Rosefield Solar Farm Great Crested Newt Habitat Suitability Index and eDNA Report (AECOM, August 2022);
 - Rosefield Solar Farm Wintering Bird Survey Report (AECOM, August 2022); and
 - Rosefield Solar Farm Report on Surveys for Breeding Birds (AECOM, August 2022).

2.3. Plants and habitats

UK habitat survey

- 2.3.1. The field survey was based on the UK habitats (UK Hab) survey methodology (Version 1.1; Butcher *et al.*, 2020), as extended for use in environmental impact assessment (Institute of Environmental Assessment 1995). The UKHab classification system is the habitat classification that underpins the Defra Biodiversity Metric and is therefore the favoured habitat classification to use when surveys need to inform a Biodiversity Net Gain Calculation. This field survey was undertaken in line with CIEEM 2017 and involved the following elements:
 - habitat mapping using a set of standard colour codes to indicate habitat types on a habitat map (Figure 4); and
 - a description of features of possible ecological or nature conservation interest in notes relating to numbered locations on the habitat map, called 'target notes' (**Figure 6**).
- 2.3.2. Vascular plant species were recorded during the survey, although no attempt was made to produce an exhaustive species list (additional species would almost certainly be found during more detailed surveys or repeat surveys at various times of the year).
- 2.3.3. Plant nomenclature in this report follows Stace (2019) for native and naturalised species of vascular plant. Introduced species and garden varieties were identified using relevant Floras. Plant names in the text are



given with common names with the scientific name (in italics) immediately following the first time it is mentioned.

Hedgerows Regulations

- 2.3.4. The status of each hedgerow within and bordering the Site was assessed using the Wildlife and Landscape Criteria of the Hedgerows Regulations 1997. A hedgerow is considered 'important' if it is more than 30 years old and meets at least one of these criteria (amongst others):
 - Contains protected species listed in the Wildlife and Countryside Act (WCA) 1981 (as amended).
 - Contains species that are endangered, vulnerable and rare and identified in the British Red Data books.
 - Includes woody species and associated features as specified in Schedule 1, Part II Criteria, paragraph 7(1) of the Hedgerows Regulations - the number of woody species needed to meet the criteria is one fewer in northern counties.
- 2.3.5. Those hedgerows that were assessed as 'important' were indicated on the Hedgerows Regulations survey map (**Figure 5**).

Notable arable weeds

2.3.6. A botanical survey was undertaken on 28 June 2023, where accessible, to determine the presence (if any) of scarce or notable arable weeds in arable fields located within the Parcels 1, 1a, 2 and 3. The perimeters of the arable fields were walked by surveyors and where necessary, tramlines through fields were used to reduce disturbance to crops. Any arable weeds identified along the edges of the crop or areas of bare ground where the crop had failed were recorded producing an overall arable weed species list.

Invasive non-native species (INNS)

2.3.7. UKHab survey does not involve exhaustive surveying for individual plant species, and various invasive species may be little in evidence at various times of year (depending on the species). A survey seeking to identify habitat types cannot therefore be relied upon to provide firm information about the presence or extent of any INNS. However, any INNS that were encountered during the habitat survey were noted, including Japanese Knotweed (*Reynoutria japonica*), Giant Hogweed (*Heracleum mantegazzianum*) and Himalayan Balsam (*Impatiens glandulifera*), as well as any INNS of animals.



2.4. Protected and notable animals

General

2.4.1. The Site was assessed for its suitability to support protected or otherwise notable animals that are likely to occur in the area. Taking into account the results of the BDS, the geographic location, connectivity to natural habitats in the wider landscape, the nature and extent of habitats at the Site, and the Proposed Development, specific assessment was also carried out for the species/species groups outlined below.

Invertebrates

2.4.2. The Site was assessed for its suitability to support notable species and/or assemblage of invertebrates, but no specific surveys were undertaken. The habitat requirements of particular invertebrates are often species-specific, so consideration was given to the presence of features and habitats that might be suitable for the notable species identified in the BDS. No specific invertebrate surveys were undertaken.

Fish

2.4.3. Waterbodies/watercourses within/alongside the Site were broadly assessed for their likely habitat and water quality, and consequent suitability to support fish (and other species); however, no specific fish surveys were undertaken.

Great crested newts

2.4.4. Although standing water is essential for their breeding, great crested newts (*Triturus cristatus*) are terrestrial for most of the year and have been recorded up to 500m from their breeding ponds. Ordnance Survey maps and aerial imagery was reviewed to identify any ponds within 500m of the Order Limits, and the Site was assessed for its suitability for both terrestrial and breeding great crested newts. Optimal breeding ponds tend to be well-vegetated, relatively clean and unpolluted, free of fish and wildfowl, and retentive of water throughout most summers (but not necessarily all). Highly suitable terrestrial habitats include woodland, scrub and tussocky grassland, although great crested newts can be found in a broad range of sub-optimal habitats as well. Habitat suitability for other amphibians was similarly assessed.

Reptiles

2.4.5. The Site was assessed for its suitability for the four most widespread reptile species, with particular attention given to those features that provide suitable basking areas (e.g. south-facing slopes), hibernation sites (e.g. banks, walls, piles of rotting vegetation) and opportunities for foraging (e.g. rough grassland and scrub).



2.4.6. Specific habitat requirements differ between species. Common lizards (*Zootoca vivipara*) and slow-worms (*Anguis fragilis*) favour rough grassland. Grass snakes (*Natrix helvetica*) have broadly similar requirements, with a greater reliance on ponds and wetlands. Adders (*Vipera berus*) use a range of fairly open habitats with some cover but are most often found in dry heath.

Birds

- 2.4.7. Birds nest, forage and roost in a wide variety of habitats including scrub, woodland, hedgerows and trees, wetland, arable and pastoral farmland and rough grassland. Some species also use open bare ground and manmade structures.
- 2.4.8. The Site was assessed for its suitability to support diverse assemblages and/or uncommon species of breeding and non-breeding birds, with an emphasis on those species that are listed on Schedule 1 of the Wildlife & Countryside Act 1981 (as amended), the red and amber lists of the Birds of Conservation Concern 5 (Stanbury et al., 2021) and other notable species recorded in the BDS, including any species that are qualifying features of nearby designated sites. Consideration was given to the Site's connectivity to landscape features that are likely to be of particular importance to birds, such as extensive areas of semi-natural woodland or wetlands. The presence of nests or signs of nest building were recorded, and buildings were surveyed for their suitability for barn owls and other species, with signs including nesting sites, feathers, droppings and pellets.

Bats

- 2.4.9. Habitats were assessed for their suitability for foraging and commuting bats, in line with guidance provided in Collins (2016). Areas of particular interest vary between species, but generally include sheltered areas and habitats with good numbers of insects, such as woodland, scrub, rivers and species-rich or rough grassland.
- 2.4.10. Trees and man-made structures were noted if they had potential suitability for roosting bats (Collins, 2016). This involved identifying features that roosting bats may favour (e.g. holes, cracks and cavities that might be used as bat access-points or roost sites).

Dormice

2.4.11. Habitats were assessed for their general suitability for dormouse (*Muscardinus avellanarius*). Dormice generally use areas of dense woody vegetation cover (including hedgerows) and are more likely to be found where there is a wide diversity of woody species contributing to three-dimensional habitat complexity, a number of food sources, plants suitable for nest-building material, and good connectivity to other areas of suitable habitat.



Water voles and otters

- 2.4.12. Waterbodies and watercourses and their surrounding habitats were assessed to determine whether they were suitable for water voles (*Arvicola amphibius*). Suitable habitats include vegetated earth banks, reed beds, flowing water and wet ditches. Incidental signs of water vole activity, including burrows, feeding platforms, food remains and latrines, were recorded if they were encountered.
- 2.4.13. Waterbodies and watercourses on the Site were also assessed for their suitability for otters (*Lutra lutra*). Otters require clean rivers and associated waterbodies with an abundant, varied supply of food and plenty of bankside vegetation, offering secluded sites for their holts. Other suitable habitats include reed beds and interconnected ditches and streams. Incidental signs of otter activity, including holts, foraging signs, paths (runs), footprints and spraints, were recorded if they were encountered.

Badgers

2.4.14. An initial assessment was carried out to identify areas that might be used by badgers (*Meles meles*) for foraging or sett building within 30m of all areas potentially affected by works (where access was possible). The area was systematically searched for signs of badgers including setts, foraging signs, paths (runs) and latrines where possible, and the category of sett and levels of activity visible at each sett was recorded.

Other species of principal importance

2.4.15. The UK countries of England, Wales, Scotland and Northern Ireland are obliged by their individual laws to maintain lists of species and habitats of principal importance for biodiversity conservation. In England, this obligation derives from the Natural Environment and Rural Communities (NERC) Act 2006. An assessment of the suitability and likelihood of the Site supporting such species was made (for example, hedgehog (*Erinaceus europaeus*)).

2.5. Constraints and limitations

- 2.5.1. Less conspicuous plant species (including INNS) may have been missed as a result of the survey being undertaken outside of the ideal survey season. However, the majority of plants present were confidently identified, and the survey was sufficient to make a broad assessment of the habitats present on the Site.
- 2.5.2. This preliminary appraisal as to whether protected or otherwise notable species might occur on the Site is based on the suitability of habitat, the known distribution of relevant species in the local area (from online sources and desk study), and any signs of the relevant species. It does not constitute a full and definitive survey of any protected species group.



- 2.5.3. Field signs for protected and valuable species are often difficult to find or absent from a site. The survey conducted was not intended to be a comprehensive presence/absence survey for all species, but rather to provide an indication of the likely presence of such species based on the field signs found, and the nature of the habitats present.
- 2.5.4. Access was not made to adjacent land, and therefore it remains possible that a badger sett (or other evidence of protected or notable species) beyond the Order Limits could have been missed. The peripheries of all such areas were, however, extensively searched where access allowed, providing a high level of confidence in the results and assessment provided.
- 2.5.5. All recommendations made in this report are based on the proposed Order Limits. If the plans change significantly, then an ecologist must be consulted and further surveys may be required.
- 2.5.6. As mentioned, access constraints meant that the PEA could not be completed in a single survey session.



3. Results

3.1. Background data search

Statutory designated sites

3.1.1. There are 10 statutory designated sites within 10km of the Order Limits, comprising all SSSIs of which only the four sites listed within Table 2 require consideration. These sites are shown on Figure 2 and listed in **Table 2** in order of proximity to the Site; short descriptions are given for the sites. In addition, whilst recognising that Ham Home-cum-Hamgreen Woods SSSI is located 3.2km south west of the Order Limits and therefore outside of the Study area, Natural England are in the process of designating a landscape scale Bernwood SSSI that encompasses the existing SSSIs located within 2km of the Order Limits and also extended to include neighbouring areas of ancient woodland including Ham Homecum-Hamgreen Woods SSSI. Bechstein's bat ((Myotis bechsteinii)) will also be included as a citation feature. The timetable for when this new designation will apply is not known but is unlikely to be before the Environmental Statement is submitted, therefore the Bernwood SSSI does not currently form part of the existing baseline.

Table 2: Statutory sites within 10km of the Order Limits (2km for SSSIs and LNRs)

Wood SSSI si p h w b	Sheephouse Wood is a large, well- structured block of ancient bedunculate oak woodland. The site has a characteristically diverse woodland flora, a typical range of breeding birds and is of particular	0m - adjacent to Parcel 1 and 1a boundary
ir S s a	nterest for its invertebrate fauna which ncludes notable and local species. Sheephouse is also important for supporting roosting and foraging bats and bats are due to be added to the citation for the site.	
Wood SSSI p c ir	Finemere Wood is a large ancient bedunculate woodland supporting rich communities of native plants, birds, nsects and other animals. In particular the wood contains populations of some local butterflies, including the nationally rare wood.	0m - adjacent to Parcel 2 boundary



Site name	Reasons for designation	Approximate distance and direction from Site
	white and black hairstreak. As for Sheephouse bats are to be added to the citation for the site.	
Grendon and Doddershall Woods SSSI	Grendon and Doddershall Woods constitute an important tract of broadleaved woodland of a kind formerly far more extensive on the clays of north Buckinghamshire. Again, these sites are important for bat species and bats are likely to be added to the citations for these sites.	1.36km south west of Parcel 1a
Ham Home- cum- Hamgreen Woods SSSI	An area of woodland representing a fragment of the formerly extensive Bernwood Forest. The varied stand structure of the wood supports a rich herbaceous flora and invertebrate population (including a national rarity), indicating long continuity of woodland conditions. The woods support nationally rare and notable butterfly species. Again, bats are due to be added to the citation for the site.	3.2km south west of Parel 2

Non-statutory designated sites

3.1.2. There are 29 non-statutory designated sites within 2km of the Order Limits, namely 17 Local Wildlife Sites (LWS), seven Biological Notification Sites (BNS), two Wildlife Trust Reserves (WTR) and three Biodiversity Opportunity Areas (BOA). The designated sites present within the study area are shown on **Figure 3** and listed in **Table 3** along with their proximity to the Site.

Table 3: Non-statutory designated sites within 2km of the Site boundary

Site name	Reasons for designation	Approximate distance and direction from Site
Bernwood BOA	An area highlighted as having potential for projects to increase biodiversity.	Within Site boundary - overlaps with Parcels 1, 1a and 2 and Interconnecting Cable Corridors



Site name	Reasons for designation	Approximate distance and direction from Site
Romer Wood LWS	Part of a group of ancient woodlands with species rich rides.	Within Site boundary - overlaps with access track within existing hardstanding
Greatsea Wood LWS	Part of a group of ancient woodlands with species rich rides.	Within Site boundary - overlaps with access track within existing hardstanding
Shrub Woods LWS	Ancient woodland site.	0m – adjacent to Parcel 1
Decoypond Wood LWS	Woodland on the western edge of a cluster of ancient woodlands south of Steeple Claydon. The woodland is a mix of wet Ash and relic Hazel coppice with Oak, Birch and Field Maple with a variety of ancient woodland indicator plants	0m - adjacent to Parcel 1
Runt's Wood LWS	Part of a group of ancient woodlands with good diversity and density of plant species within rides including particularly flower rich communities in wetter areas.	0m - adjacent to Parcel 2
Finemere WTR	As for Finemere Wood SSSI also a wildlife trust reserve.	0m - adjacent to Parcel 2
Home Wood, Middle Claydon LWS	Large relatively wet ancient woodland site, part of a group of ancient woodlands.	0m - adjacent to Interconnecting Cable Corridors
Balmore Wood LWS	Large ancient woodland site, part of a group of ancient woodlands.	95m west of Parcel 2
Calvert Railway Station LWS	Disused railway station with wet grassland on clay. Site supports species that are rare to the county including Carnation Sedge (<i>Carex panicea</i>), Betony (<i>Stachys offcinalis</i>), and Sneezewort (<i>Achillea ptarmica</i>), with habitats supporting a diverse range of invertebrate and bird species and	174m west of Parcel 1



Site name	Reasons for designation	Approximate distance and direction from Site
	common lizard (<i>Zootoca vivipara</i>) which is rarely recorded in the county.	
Calvert Jubilee Nature Reserve LWS and WTR	Large, disused clay pit. It is especially important as an overwintering site for wildfowl. Also supports county rare plant species Blue Fleabane (<i>Erigeron acer</i>), Devil's-bit Scabious (<i>Succisa pratensis</i>) and Heath Grass (<i>Danthonia decumbens</i>).	364m west of Parcel 1
Grendon and Doddershall Meadows LWS	Large complex of meadows either side of the railway west of Quainton supporting a great variety of wildlife including farmland birds, common blue (<i>Polyommatus icarus</i>), and marbled white (<i>Melanargia galathea</i>) butterflies, typical unimproved meadow flora and several plant species that are unusual in Bucks, namely Sneezewort, Fen Bedstraw (<i>Galium uliginosum</i>), Oval Sedge (<i>Carex ovalis</i>) and Blunt Flowered Rush (<i>Juncus subnodulosus</i>).	595m west of Site boundary
Area north-west of Calvert Brickworks BNS	Rough grassland with wet area towards lake. Contains Adders Tongue Fern (Ophioglossum vulgatum), Bee Orchid (Ophrys apifera) and many Common Spotted Orchids (Dactylorhiza fuchsii). Invertebrate records include Dingy skipper (Erynnis tages) and Grizzled skipper (Pyrgus malvae).	737m west of Parcel 1
Track leading to railway BNS	Hedges on one then both sides. Suggestion of calcareous rubble beneath track in area of railway bridges. Records include the county uncommon plants Spiny Restharrow (<i>Ononis</i> spinosa), Thicket Dog Rose (<i>Rosa x</i> dumetorum (f x m)) and Dropwort (<i>Filipendula vulgaris</i>).	790m south of Parcel 1a



Site name	Reasons for designation	Approximate distance and direction from Site
Calvert Brick Pits, Great Moor Sailing Club LWS	Large lake surrounded by a mosaic of scrub and grassland glades including pockets of calcareous grassland.	989m west of Parcel 1
Redland Bridge, Steeple Claydon BNS	Small river flowing to the south of Steeple Claydon, under the road to Calvert.	1.33km north of Parcel 1
Wood between Lawn Hill and Dunsty Hill LWS	Small woodland with ancient woodland indicator, located beside an area of cleared ancient woodland surrounded by relic laid hedgerows with now shallow ditches.	1.36km south west of Parcel 1
Grassland near Addington BNS	Field between road and railway with dry and damp grassland habitats. Site includes hollows from clay extraction and tall hedgerows. Includes areas of scrub. Clay extraction has helped sculpt the field surface.	1.36km north west of Site boundary
Lower Farm Fields LWS	Ridge and furrow.	1.38km south west of Snake Lane/Fiddlers Field Road
Upper Ray BOA	An area highlighted as having potential for projects to increase biodiversity.	1.43km south west of Parcel 1a
Stonehill Lane LWS	The lane runs north to south in an open, rolling landscape of hedge-lined fields to the west of North Marston. The site supports species-rich hedgerows and grassland areas.	1.44km south east of Interconnecting Cable Corridor
Grendon Underwood Meadows LWS	Fields supporting high diversity of typical unimproved meadow flower species.	1.45km south west of Parcel 1a
Quainton Church Pond BNS	Small pond in the grounds of Quainton church, adjacent to wildflower meadow, churchyard and near stream.	1.45km east of Snake Lane/Fiddlers Field Road improvements
Waddesdon Common LWS	Ridge and furrow.	1.55km south east of Snake Lane/Fiddlers



Site name	Reasons for designation	Approximate distance and direction from Site
		Field Road improvements
South Lake, Addington BNS	Small lake just north of railway. Surrounded by mixed woodland. Small stream flows out of the western corner of the lake. The lake was dug in 1859.	1.59km north west of Site boundary
Blackgrove Meadows BNS	Land near stream liable to flooding supporting snipe (Gallinago gallinago), teal (Anas crecca) and mallard (Anas platyrhynchos) in winter. Pond situated in eastern fields. Parish boundary double hedge of Hawthorn (Crataegus monogyna) and Backthorn (Prunus spinosa), with Rose (Rosa sp.), Bramble (Rubus fruticosus agg.), Field Maple (Acer campestre), Crab Apple (Malus sylvestris), Elm (Ulmus agg.), Ash (Fraxinus excelsior), Sallow (Salix sp.) and Buckthorn (Rhamnus cathartica).	1.60km south east of Snake Lane/Fiddlers Field Road improvements
Thane Valley BOA	An area highlighted as having potential for projects to increase biodiversity.	1.74km south east of Snake Lane/Fiddlers Field Road improvements
Verney Junction Station LWS	Scrub habitat.	1.74km north west of Site boundary

Habitats

3.1.3. There are 52 areas of ancient woodland within 2km of the Site boundary, of which 33 are areas of ancient semi-natural woodland and 19 are areas of replanted ancient woodland. The closest areas of ancient woodland are both ancient semi-natural woodland and replanted ancient woodland that are directly adjacent to the Site boundary in multiple locations.

Biodiversity action plans

- 3.1.4. Habitats on the Site that qualify as the priority habitat types under Section 41 of The Natural Environment and Rural Communities (NERC) Act 2006 include:
 - Hedgerows



- Ponds
- · Arable field margins
- · Lowland mixed deciduous woodland
- 3.1.5. The Buckinghamshire and Milton Keynes Biodiversity Action Plan (BAP) serves as the interim Biodiversity Strategy, with a focus on nature's recovery, until such time as formal Local Nature Recovery Strategies (LNRS) are finalised to cover Buckinghamshire and Milton Keynes.
- 3.1.6. The BAP lists a number of habitats as local formal targets, those relevant to the Site include:
 - Ponds
 - Rivers and streams
 - Lowland mixed deciduous woodland
 - Hedgerows

Protected and notable species

- 3.1.7. At least 346 protected and noteworthy species/groups are recorded from places within 2km of the Order Limits. Noteworthy species include species of principal importance that are listed under Section 41 of The Natural Environment and Rural Communities (NERC) Act 2006.
- 3.1.8. Of these, 22 are plants, one is a fungi, 143 are invertebrates, one is a fish, five are amphibians, three are reptiles, 147 are birds, and 24 are mammals (of these, 17 are bats). Species that are protected by law under Schedules 2 and 5 of The Conservation of Habitats and Species Regulations 2017 (as amended), Schedules 1, 2, 5 and 8 of The WCA1981 (as amended) or The Protection of Badgers Act 1992 that have been recorded in the search area are highlighted in the full species list is given in **Annex C**. Those of relevance to the Site and the current proposals are discussed in **Sections 3.2** and **3.3**.

3.2. Plants and habitats

Protected and notable plants

3.2.1. The BDS returned records of 22 notable plant species within 2km of the Order Limits including true Fox-sedge (*Carex vulpina*), Juniper (*Juniperus communis*), Grape-hyacinth (*Muscari neglectum*), Tubular Water-dropwort (*Oenanthe fistulosa*) (species listed under Section 41 of the NERC Act 2006), Bluebell (*Hyacinthoides non-scripta*) (WCA 1981 (as amended), Section 8) and Good-King-Henry (*Chenopodium bonus-henricus*) (species listed as vulnerable on the Red list conservation status of GB). The only record identified within the Order Limits was Good-King-Henry however, several records were located within the areas of woodland adjacent to the Site.



3.2.2. During the survey Bluebell was recorded within areas of woodland, however no other notable plant species were recorded within the Order Limits, predominantly due to the intensity of the agricultural field management.

UK habitat survey

3.2.3. The UKHab habitat map is provided as **Figure 4** and shows the location of the target notes referred to in the text below. A full description for each of the target notes is given in **Annex E**. A description of the UKHab habitat classification and corresponding codes are presented in **Table 4**.

Table 4: UKHab habitats and corresponding codes

UKHab primary habitat	UKHab code
Cereal crop	c1c
Non-cereal crops	c1d
Other neutral grassland	g3c
Modified grassland	g4
Other woodland: broadleaved	w1g
Lowland mixed deciduous woodland	w1f
Ponds (priority habitat)	r1
Reedbeds	f2e
Mixed scrub	h3h
Bramble scrub	h3d
Buildings	u1b5
Artificial unvegetated, unsealed surface	u1c
Native hedgerow	h2a
Native hedgerow with trees	h2a
Native hedgerow – associated with bank or ditch	h2a
Native hedgerow with trees – associated with bank or ditch	h2a
Species-rich native hedgerow	h2a



UKHab primary habitat	UKHab code
Species-rich native hedgerow with trees – associated with bank or ditch	h2a
Species-rich native hedgerow with trees	h2a
Line of trees	w1g6
Ecologically valuable line of trees	w1g6
Other rivers and streams	r2b

Grassland

- 3.2.4. Several grassland fields were recorded within Parcel 1 (predominantly to the west), Parcel 1a (predominantly to the south and west) and Parcel 2 (predominantly to the south) and south of Parcel 3 (predominantly to the north), and along the grid connector cable corridor and interconnecting cable corridor. The majority of these fields comprised *modified grassland* with several currently grazed by cattle, sheep and horses.
- 3.2.5. Grass species recorded within these fields included Perennial Rye-grass (Lolium perenne), Common Bent (Agrostis capillaris), False Oat-grass (Arrhenatherum elatius), Yorkshire-fog (Holcus lanatus), Meadow Foxtail (Alopecurus pratensis), Meadow-grasses (Poa sp.), Crested Dog's-tail (Cynosurus cristatus), Timothy (Phleum pratense), Common Couch (Elytrigia repens), Black-grass (Alopecurus myosuroides) and Meadow Barely (Hordeum secalinum).
- 3.2.6. Small areas of *modified grassland* were recorded within the National Grid Substation within the west and north of the area including areas that were sheep grazed. Species recorded in the area included Yorkshire-fog, Perennial Rye-grass, Cock's-foot, Creeping Bent (*Agrostis stolonifera*), White Clover (*Trifolium repens*), Common Nettle (*Urtica dioica*), Common Mouse-ear (*Cerastium fontanum*), Spear Thistle (*Cirsium vulgare*), Crested Dog's-tail, Red Fescue (*Festuca rubra*), Creeping Thistle (*Cirsium arvense*), Ground Ivy (*Glechoma hederacea*) and Cow Parsley (*Anthriscus sylvestris*), with smaller amounts of Hard Rush (*Juncus inflexus*), Bedstraw species (*Gallium* sp.), Tufted Hair-grass (*Deschampsia cespitosa*), False Oat-grass, Timothy, Dove's-foot Crane'sbill (*Geranium molle*), Lords and ladies (*Arum maculatum*) recorded towards the edges of the fields.
- 3.2.7. The majority of cropland fields supported *other neutral grassland* margins ranging approximately 1-3m in width. Species commonly recorded within the margins comprised Common Bent, False Oat-grass, Yorkshire-fog, Perennial Rye-grass, Meadow Foxtail, Meadow-grasses, Crested Dog's-tail, Timothy, Common Couch, Black-grass, Soft-brome (*Bromus hordeaceus*), Redshank (*Persicaria maculosa*), Creeping Buttercup



- (Ranunculus repens), Creeping Thistle and Hogweed (Heracleum sphondylium).
- 3.2.8. Smaller areas of other neutral grassland were recorded throughout the Order Limits, primarily to the west and south of Parcel 1 and north of Parcel 1a and south of Parcel 2 which included areas recently planted as part of HS2 mitigation. Grass species generally comprised Yorkshire-fog, Meadow Barley, Crested Dog's-tail, Meadow Foxtail, Common Bent, Tufted Hair-grass Timothy, False Oat-grass, Red Fescue, Cock's-foot (Dactylis glomerata), Soft-brome and Sweet Vernal Grass (Anthoxanthum odoratum). Forb species recorded comprised Meadow Buttercup (Ranunculus acris), Creeping Buttercup, Creeping Cinquefoil (Potentilla reptans), Yarrow (Achillea millefolium), Common Bird's-foot-trefoil (Lotus corniculatus), Soft-rush (Juncus effusus), Hard Rush, Tufted Vetch (Vicia cracca), Bristly Oxtongue (Helminthotheca echioides), Meadow Vetchling (Lathyrus pratensis), St Johns-wort species (Hypericum sp.), Willowherb species (Epilobium sp.), Lady's Bedstraw (Galium verum), White Clover and Hogweed.
- 3.2.9. Areas of other neutral grassland were also recorded within the National Grid substation. Species recorded comprised False Oat-grass, Perennial Rye-grass, Common Couch, Cock's-foot, Common Ragwort (Senecio jacobaea), Bristly Oxtongue, Rose (Rosa sp.), Creeping Thistle, Ground Ivy, Spear Thistle, Common Nettle, Creeping Buttercup, Dock (Rumex sp.), St John's-wort (Hypericum sp.) and Hard Rush.

Woodland

- 3.2.10. Within Parcel 1, Parcel 2, Parcel 3 and the grid connector cable corridor and interconnecting cable corridors, small copses of woodland were recorded, however these were limited in extent, with larger areas of woodland recorded along the Site boundary which were not surveyed in detail due to being located outside of the Site boundary. The majority of the woodland areas were recorded as *other woodland; broadleaved* with smaller number of areas recorded as *lowland mixed deciduous woodland*.
- 3.2.11. Species recorded within the canopy typically comprised Ash, Hazel (*Corylus avellana*), Oak (*Quercus* sp.), Field Maple, Willow, Horse-chestnut (*Aesculus hippocastanum*), Lime (*Tilia* sp.), White Poplar (*Populus alba*), Sycamore (*Acer pseudoplatanus*), Crab Apple and Hornbeam (*Carpinus betulus*). The understorey tended to be sparse, comprising Blackthorn, Hawthorn and Bramble, with ground flora recorded comprising Common Nettle, Garlic Mustard (*Alliaria petiolata*), Ivy (*Hedera helix*), Cow Parsley, Cleavers (*Galium aparine*), Ground Ivy, Creeping Cinquefoil and Wood Dock (*Rumex sanguineus*).
- 3.2.12. Areas of young tree planting were recorded within Parcel 1 and Parcel 1a. Species recorded within these areas included Hawthorn, Oak, Hornbeam, Willow, Birch (*Betula* sp.), Cherry (*Prunus* sp.), Rowan, Hazel and Blackthorn.



3.2.13. Within the National Grid Substation an area of other woodland; broadleaved was recorded along the northern and south-western boundaries, comprising species including Lime, Silver Birch (*Betula pendula*), Pedunculate Oak (*Quercus robur*), Scots Pine (*Pinus sylvestris*), Elder (*Sambucus nigra*), Ash, Aspen (*Populus tremula*), White Poplar (*Populus alba*) and Sycamore saplings.

Hedgerows

- 3.2.14. The majority of fields across the Order Limits were bounded by hedgerows with several of the hedgerows supporting mature trees and dry ditches.
- 3.2.15. Species typically recorded included Hawthorn, Blackthorn, Elm, Dogwood (*Cornus sanguinea*), Hazel, Ash, Oak, Elder, Field Maple, Rose, Willow and Bramble.

Rural trees and lines of trees

3.2.16. Several individual mature rural trees and lines of trees were recorded across the Order Limits, and comprised species including Pedunculate Oak, Ash, Willow, Field Maple, Elm and non-native conifer species.

Scrub

3.2.17. Small amount of *mixed scrub* habitat and *Bramble scrub* was recorded with Parcel 1, Parcel 2 and Parcel 3, interconnecting cable corridor, grid connection cable corridor and the National Grid Substation, typically surrounding ponds and along field edges and grassland edges. Species recorded comprised Blackthorn, Hawthorn, Oak, Crab Apple, Bramble and Rose.

Wetland

3.2.18. A small area of man-made reedbed was recorded within the interconnecting cable corridor between Parcel 2 and Parcel 3.

Waterbodies

3.2.19. A number of ponds and ditches were recorded within the Order Limits, including several that at the time of survey were dry. Aquatic vegetation recorded within the ponds included Branched Bur-reed (*Sparganium erectum*), Spike rush (*Eleocharis* sp.), Fool's water-cress (*Apium nodiflorum*), Soft-rush, Pendulous Sedge (*Carex pendula*), Bulrush and Broad-leaved Pondweed (*Potamogeton natans*).

Watercourses

3.2.20. The Claydon Brook was recorded along the northern boundary of Parcel 3, with a tributary branch located along the eastern boundary of Parcel 3. The watercourse held water at the time of survey within the Claydon Brook section, with only sections of the tributary holding water in some locations.



The channel was choked with terrestrial and aquatic vegetation, in some locations with steep banks with dense woodland and scrub vegetation. There was also a small watercourse recorded on the northern boundary of Parcel 1a and the northeast corner of Parcel 1.

Cropland

3.2.21. Within Parcel 1, Parcel 1a, Parcel 2 and south of Parcel 3, the majority of the fields comprised of *arable cropland cereal crop*, with a few fields comprising *non-cereal crops*. Several arable cropland fields were also recorded within the interconnecting cable corridors. The majority of these fields comprised Wheat (*Triticum* sp.), with Oat (*Avena* sp.), Maize (*Zea mays*) and recently ploughed fields also recorded.

Built-up areas

3.2.22. Within the Order Limits were several access tracks *comprising artificial* unvegetated - unsealed surface and developed land; sealed surface and buildings.

Hedgerows regulations

3.2.23. A total of 248 hedgerows were recorded within and adjacent to the Order Limits, with 48 identified as 'important' under the Wildlife and Landscape Criteria of the Hedgerows Regulations 1997. Their locations are shown on **Figure 5**, with descriptions provided in **Annex F**.

Notable arable weeds

- 3.2.24. Within Parcel 3 active management to control arable weeds was very much apparent. Crop margins were found to have been sprayed with herbicides, preventing growth of arable weeds immediately adjacent to the crop. In other instances, the crop was growing up to the hedgerow boundary with no space for arable weeds to grow or there was a wide grass margin between the crop and the hedgerow boundary again reducing the potential for arable weeds to be present. The crop itself was clean of weeds and the previous years' plants with no visible areas of crop failure. Common and widespread arable weed species were recorded in association with patches of sprayed bare ground and the adjacent hedgerows.
- 3.2.25. Similarly, the field margins in Parcel 2 were mostly sprayed with herbicides to the edge of the crop or the crop grew up to hedgerow boundaries. However, some fields had wider grassy margins and areas where the crop had failed, primarily in corners of fields or where farmland machinery tracks had been created, in which common arable weeds/vegetation were recorded. Though Parcel 2 was the most interesting in terms of arable weed presence, species recorded were sparsely distributed and of limited abundance and comprised common and widespread plant species in the UK.



- 3.2.26. All surveyed fields in Parcel 1 had seeded grass margins with Meadow-grasses and various common wildflowers such as Common Knapweed (*Centaurea nigra*) and Oxeye Daisy (*Leucanthemum vulgare*). The grasses present were dominant and likely preventing growth of arable weeds as they grew to the edge of the crop. Again, the crop appeared clean, and no notable or rare arable weeds were recorded as present in this area.
- 3.2.27. A list of plant species recorded as present across all three survey areas are detailed below. None of these species are categorised as rare or notable and were scarcely distributed around the grassy or sprayed margins of the fields. It is considered that rare or notable arable weeds are highly unlikely to be present within the Order Limits.
 - Black Bryony (Tamus communis)
 - Bristly Oxtongue
 - Common Orache (Atriplex patula)
 - · Creeping Cinquefoil
 - Cut-leaved Crane's-bill (Geranium dissectum)
 - Field Bindweed (Convolvulus arvensis)
 - Field Forget-me-not (*Mytosis arvensis*)
 - Fool's Parsley (Aethusa cynapium)
 - Hoary Ragwort (Jacobaea erucifolia)
 - Lesser Swine-cress (Lepidium didymum)
 - Perennial Sow Thistle (Sonchus arvensis)
 - Redshank
 - Scarlet Pimpernel (Anagallis arvensis)
 - Selfheal (Prunella vulgaris)
 - Scented Mayweed (Matricaria chamomilla)
 - Shepherd's Purse (Capsella bursa-pastoris)
 - White Dead-nettle (Lamium album)

Invasive non-native species

- 3.2.28. The BDS identified several INNS within 2km of the Order Limits including Indian Balsam (*Impatiens glandulifera*), Canadian Waterweed (*Elodea canadensis*), Variegated Yellow Archangel (*Lamiastrum galeobdolon subsp. argentatum*) and Wall Cotoneaster (*Cotoneaster horizontalis*), however none were located within the Order Limits.
- 3.2.29. The BDS also identified several INNS animal species within 2km of the Order Limits including mandarin duck (*Aix galericulata*), ruddy duck



(*Tadorna ferruginea*), barnacle goose (*Branta leucopsis*), bar-headed goose (*Anser indicus*), Canada goose (*Branta canadensis*), snow goose (*Anser caerulescens*), ring-necked parakeet (*Psittacula krameri*), black swan (*Cygnus atratus*), zander (*Stizostedion lucioperca*), wels catfish (*Silurus glanis*), chinese water deer (*Hydropotes inermis*) and American mink (*Mustela vison*), however none were located within the Order Limits. During the surveys undertaken no evidence of INNS was identified within the Order Limits, however a pond located 9m from the interconnecting cable corridor boundary was found to contain New Zealand Pigmyweed (*Crassula helmsii*), an INNS listed on Schedule 9 of the WCA 1981 (as amended) (**Figure 6** - Target note 78).

3.3. Protected and notable animals

3.3.1. **Figure 6** shows the location of the target notes referred to in the text below, which show the location of particular features with suitability for protected and notable animals. A full description for each of the target notes is given in **Annex E**.

Invertebrates

- 3.3.2. The BDS identified 143 records of protected or otherwise notable invertebrates within 2km of the site. Of particular note are black hairstreak (*Satyrium pruni*), wood white (*Leptidea sinapis*), white admiral (*Limenitis camilla*), white-letter hairstreak (*Satyrium w-album*), purple emperor (*Apatura iris*) and brown hairstreak (*Thecla betulae*), which are butterfly species that are included within the citations for Sheephouse Wood SSSI, Finemere Wood SSSI Grendon and Doddershall Woods SSSI and Ham Home-cum-Hamgreen Woods SSSI.
- 3.3.3. On site, the majority of the habitats present were considered likely to support a common assemblage of invertebrate species, typical of arable field margins, hedgerows, woodland and scrub and grassland habitats, however the food source for black hairstreak and brown hairstreak caterpillar, Blackthorn, was recorded abundantly across the Site within hedgerows and woodland areas. Areas of standing and fallen deadwood were also noted (**Figure 6** Target notes 28, 38, 47, 51, 56, 59, 65, 70 and 72).
- 3.3.4. Species observed during the survey included cinnabar moth (*Tyria jacobaeae*), Marbled white (*Melanargia galathea*), meadow brown (*Maniola jurtina*), ringlet (*Aphantopus hyperantus*), comma (*Polygonia calbum*), gatekeeper (*Pyronia tithonus*), small heath (*Coenonympha pamphilus*), large white (*Pieris brassicae*), small skipper (*Thymelicus sylvestris*), small tortoiseshell (*Aglais urticae*), large skipper (*Ochlodes sylvanus*) and purple hairstreak (*Favonius quercus*) (**Figure 6** Target notes 34-37, 43, 62, 63, 67 and 73). Several yellow meadow ant (*Lasius flavus*) hills were also recorded within the Order Limits (**Figure 6** Target notes 9 and 44).



Fish

- 3.3.5. The BDS identified records of five fish species within 2km of the Order Limits including spined loach (*Cobitis taenia*) a species listed under Section 41 of the NERC Act 2006, bullhead (*Cottus gobio*), common carp (*Cyprinus carpio*) and the INNS Wels catfish and zander.
- 3.3.6. The Claydon Brook along with several larger waterbodies were considered to provide suitable habitat for supporting fish species.

Great crested newts

- 3.3.7. The BDS identified records of great crested newt within 2km of the Order Limits, however no records were located within the Order Limits. A total of eight great crested newt class survey license returns between 2016-2017 were identified within Parcel 1, indicating the species is present. The BDS also identified records of common toad (*Bufo bufo*), common frog (*Rana temporaria*), palmate newt (*Lissotriton helveticus*) and smooth newt (*Lissotriton vulgaris*) within 2km of the Order Limits, however no records were located within the Order Limits.
- 3.3.8. A review of previous reports of Habitat Suitability Index (HSI) and environmental DNA (eDNA) surveys undertaken identified multiple ponds within the Order Limits and up to 500m from the Order Limits as supporting great crested newts or having suitability to support this species.
- 3.3.9. During the survey several waterbodies were recorded, whilst some were considered sub-optimal to support great crested newts due to likely supporting fish or being largely dry at the time of survey, several were considered suitable to support breeding populations of great crested newt as well as other amphibian species.
- 3.3.10. The areas of woodland, grassland margins and hedgerows were considered suitable to provide foraging, refuge and hibernation opportunities for amphibian species, including great crested newts with several potential hibernacula also recorded across the Site (**Figure 6** Target notes 92, 95, 111, 116 and 118).

Reptiles

- 3.3.11. The BDS identified records of grass snake and common lizard, and slowworm within 2km of the Site however no records were identified within the Order Limits.
- 3.3.12. Within the site, most of the land comprised arable and modified grassland fields, which are considered sub-optimal to support reptiles; however, smaller areas of rough grassland and scrub habitats were considered suitable sheltering and foraging habitat to support common reptile species however these were limited in extent.



Birds

- 3.3.13. The BDS identified records of 147 priority bird species within 2km of the Site (red and amber list species included on the BOCC, UK priority species under NERC Act 2006 and Schedule 1 of the WCA 1981 (as amended)). Whilst only one record was identified within the Order Limits (aquatic warbler (*Acrocephalus paludicola*)), multiple records were identified adjacent to the Site predominantly within the areas of woodland located adjacent to the Order Limits.
- A review of previous reports identified a total of 59 bird species recorded 3.3.14. during wintering bird surveys for the Site between October 2021 and March 2022. Of these 59 bird species, 34 species met at least one of a range of criteria relating to conservation importance including species listed on Schedule 1 of the WCA 1981 (as amended) such as little egret (Egretta garzetta), red kite (Milvus milvus), golden plover (Pluvialis apricari), peregrine (Falco peregrinus), fieldfare (Turdus pilaris) and redwing (Turdus iliacus). Wintering bird surveys undertaken of the Site between October 2021-March 2022 identified species diversity for the Site is of county importance and, individually, Sites 1 and 2 support an assemblage of wintering birds which may be of importance at a district level. However, individually, species diversity at Sites 1a and 3 are only of local importance. Species populations are of Local importance within the Site, with the exception of snipe (which occurs in numbers of County importance).
- 3.3.15. A total of 57 species (including species listed on Schedule 1 of the WCA 1981 (as amended) and Annex 1 of the EU Birds Directive) were recorded during surveys of breeding birds between March and June 2022. Of the 57 species recorded within the survey area, territories of 39 species were confirmed and territories of a further ten species were considered to be probable or possible within the survey area, resulting in a breeding bird assemblage of 49 species. Species recorded breeding within the Site included species listed on Schedule 1 of the WCA 1981 (as amended) such as red kite, hobby (*Falco subbuteo*), with barn owl (*Tyto alba*) considered to be possibly breeding. A number of trees across the Site were also identified as suitable nesting habitat for barn owl.
- 3.3.16. During the 2023 and 2024 surveys a number of species were recorded within the arable fields including yellowhammer (*Emberiza citrinella*), skylark (*Alauda arvensis*), yellow wagtail (*Motacilla flava*), reed bunting (*Emberiza schoeniclus*), linnet (*Carduelis Cannabina*), lesser whitethroat (*Sylvia curruca*), dunnock (*Prunella Modularis*), house sparrow (*Passer domesticus*), robin (*Erithacus rubecula*), swallow (*Hirundo rustica*) and swift (*Apus Apus*). Within more woodland/scrub habitat species recorded included blackcap (*Sylvia atricapilla*), chiffchaff (*Phylloscopus collybita*), chaffinch (*Fringilla Coelebs*), greenfinch (*Chloris chloris*), blue tit (*Cyanistes caeruleus*), great tit (*Parus major*), song thrush (*Turdus philomelos*), great spotted woodpecker (*Dendrocopos major*) and cuckoo



- (*Cuculus canorus*). Foraging raptors were also recorded frequently across the Site including red kite and buzzard (*Buteo buteo*).
- 3.3.17. The areas of woodland and hedgerow within the Site were assessed as suitable for providing foraging and breeding opportunities for a range of breeding birds, in particular passerine species. The areas of grassland and arable field margins were considered suitable habitat for ground nesting species such as skylark and lapwing (*Vanellus vanellus*). Barn owl boxes were also recorded across the Order Limits.

Bats

- 3.3.18. The BDS returned multiple records of roosts, foraging and commuting activity for 17 bat species/groups within 2km of the Order Limits comprising Bechstein's bat, Brandt's bat (*Myotis brandtii*), serotine (*Eptesicus serotinus*), Leisler's bat (*Nyctalus leisleri*), noctule bat (*Nyctalus noctule*), Daubenton's bat (*Myotis daubentonii*), whiskered bat (*Myotis mystacinus*), whiskered/Brandt's bat (*Myotis mystacinus/brandtii*), Natterer's bat (*Myotis nattereri*), myotis species (*Myotis* sp.), western barbastelle (*Barbastella barbastellus*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), Nathusius's pipistrelle (*Pipistrellus nathusii*), pipistrelle species (*Pipistrellus* sp.), brown long-eared bat (*Plecotus auritus*) and unidentified bat species (*Chiroptera*).
- 3.3.19. One record of Bechstein's bat was identified within the Order Limits however high concentrations of records were located within the woodland blocks located adjacent to the Order Limits including multiple records of Bechstein's bats located within Finemere Wood, Sheephouse Wood, Hone Wood, Shrubs Wood and Decoypond Wood.
- 3.3.20. A review of previous reports identified multiple trees within the Order Limits as having potential to support roosting bats including trees with high and moderate potential.
- 3.3.21. During the survey multiple of trees and woodland blocks were assessed as having potential to support roosting bats (Target notes 3, 5-8, 10-13, 16, 21-24, 27, 30-33, 39, 42, 45, 47-54, 57, 60, 64-66, 69-61, 74-77, 80, 81, 91, 93, 94, 97, 98, 121 and 123-128) and a barn (Target note 41). The arable and modified grassland fields were assessed to be of limited value to foraging bats; however, the hedgerows, field margins, woodland and pond habitats were assessed as offering suitable foraging and commuting habitat.

Dormice

- 3.3.22. The BDS identified no records of hazel dormouse within 2km of the Order Limits.
- 3.3.23. The areas of woodland within the Site were considered sub-optimal to support dormice, given that the majority of the woodland areas had a lack of diverse and dense understorey and limited amounts of Hazel (although



other species used by dormice, including Oak, Bramble, Ash, Birch, and Hawthorn, were recorded). The hedgerows within the Site were considered suitable provide suitable habitat for dormice and provide connectivity to the wider landscape.

Water voles and otters

- 3.3.24. The BDS identified records of otter and water vole within 2km of the Order Limits, however no records were located within the Order Limits.
- 3.3.25. At the time of survey no signs of water voles were observed, the majority of watercourses and ditches present on Site were dry and lacked substrate suitable for burrowing and emergent vegetation for foraging.
- 3.3.26. The Claydon Brook was considered suitable to provide commuting and foraging opportunities for otter whilst woodland habitat could provide suitable resting or lying up opportunities.

Badgers

- 3.3.27. The BDS identified multiple records of badger within 2km of the Order Limits including records of a badger setts located within the Order Limits.
- 3.3.28. A review of previous reports identified multiple badger setts located within and adjacent to the Order Limits including main, annex, subsidiary and outlier setts.
- 3.3.29. Habitats on Site were noted as being potentially suitable for this species, comprising grassland, scrub, and woodland, which together provides suitable foraging and resting opportunities for badgers, several badger setts were identified during the survey and multiple badger latrines and mammal paths were recorded throughout the Order Limits.

Other species

- 3.3.30. The BDS identified records of polecat (*Mustela putorius*), brown hare (*Lepus* europaeus), European hedgehog (*Erinaceus europaeus*) and harvest mouse (*Micromys minutus*).
- 3.3.31. During the survey several brown hares and roe deer (*Capreolus* capreolus) were noted within arable field areas (Target notes 20 and 58).
- 3.3.32. Habitats within the Site, including woodland, hedgerows and grassland, were considered suitable for European hedgehog. Hedgehogs occupy a range of lowland habitats with enough cover to allow nesting. The areas of woodland, hedgerows and grassland within the Site provide suitable foraging habitat for European hedgehogs, with the hedgerows providing connectivity to suitable habitat in the wider landscape, however no evidence of European Hedgehog was noted during surveys.
- 3.3.3. Polecat favour a range of habitat types including woodland and farmland habitats; these are present abundantly within the Site, however no evidence of polecat was noted during surveys.



3.3.34. Habitats suitable to support harvest mouse present within the Site included the hedgerows, and areas of grassland around the arable field margins, however no evidence of harvest mouse was noted during surveys.



4. Evaluation

4.1. Internationally designated sites

- 4.1.1. SACs and SPAs are part of the 'national site network' and are afforded protection under the provisions of The Conservation of Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations') or their equivalents in the devolved administrations (refer to **Annex B**). These sites are designated as being of international importance for ecology and nature conservation. Furthermore, Ramsar sites are also of international importance, being wetlands that have been designated under the criteria of the Ramsar Convention on Wetlands for containing representative, rare or unique wetland types or for their importance in conserving biological diversity (see **Annex B**).
- 4.1.2. There are no internationally designated sites located within 10km of the Order Limits. Furthermore, there are no potential impact pathways identified due to the distance from the Proposed Development site, the nature of the habitats present within the Order Limits and the scale and nature of the Proposed Development works.
- 4.1.3. Given the reasons outlined above, no significant adverse effects are anticipated on any of the internationally designated sites, all of which fall outside of the zone of influence of the Proposed Development, and they are therefore not considered further.

4.2. Sites of special scientific interest

- 4.2.1. Discussions with Natural England have indicated Natural England are in the process of designating a landscape scale Bernwood SSSI that encompasses the existing SSSIs located within 2km of the Order Limits (Sheephouse Wood SSSI, Finemere Wood SSSI and Grendon and Doddershall Woods SSSI) and also extended to include neighbouring areas of ancient woodland including Ham Home-cum-Hamgreen Woods SSSI. Bechstein's bat will also be included as a citation feature. At the time of writing (July 2025), limited information on the proposed Bernwood SSSI designation was publicly available and the date for designation is not yet known. Further assessment and consultation with Natural England is ongoing to assess the potential for the Proposed Development to impact the interest features of the SSSIs and the integrity of the sites.
- 4.2.2. A full assessment on impacts to SSSI sites will be detailed within the ES.

4.3. Non-statutory designated sites

4.3.1. The Order Limits overlaps a small section of the larger Bernwood BOA, Romer Wood LWS and Greatsea Wood LWS, located within the Internal Access Corridor to the north of Parcel 1a. The area of these woodlands that are located within the Order Limits are the existing access tracks. In order to access areas proposed for landscaping and environmental



enhancements in Parcel 1a, an existing track, located within Romer Wood and Greatsea Wood, currently used by maintenance traffic associated with HS2 landscape planting would be used to allow light vehicles, such as tractors, to access this area for habitat creation and maintenance works. No loss of ancient woodland would be required as existing access tracks would be utilised and no built development is proposed along the access track. There are also six non-statutory designated site located adjacent/within close proximity to the Order Limits. Loss or damage to these sites would have significance in nature conservation terms, at least in the local and potentially regional context and would therefore require a robust mitigation strategy to address any potential impacts in accordance with local policy, in addition to national policy and legislation.

- 4.3.2. There are also a further 20 non-statutory designated sites within 2km of the Order Limits. Impacts resulting from the Proposed Development (such as construction traffic increasing dust, or pollution impacts) could affect these sites, therefore measures would need to be taken into consideration when planning construction activities to minimise the risk of impacts to the sites and protect the integrity of the sites.
- 4.3.3. A full assessment on impacts to non-statutory designated sites will be detailed within the ES.

4.4. Habitats and plants

- 4.4.1. The majority of the habitat present within the Order Limits comprises arable fields which are common and widespread in the surrounding landscape. However, hedgerows, arable field margins, lowland mixed deciduous woodland, ponds and rivers and streams all qualify as local BAP priority habitats and/or habitats of principal importance (being listed under Section 41 of the NERC Act 2006 (refer to **Annex B**)) and are likely collectively to be of at least county value when considered in isolation from fauna interest. The linear habitats such as hedgerows also provide connectivity across the Site and to the wider landscape.
- 4.4.2. Hedgerows, arable field margins, lowland mixed deciduous woodland, ponds and rivers and streams have also been assessed as known and/or suitable to support protected, notable and local priority species for nature conservation, including terrestrial invertebrates, great crested newt, common reptile species, breeding birds, wintering birds, bats, water vole, otter, badger, European hedgehog, brown hare, harvest mouse and polecat. The Site is therefore considered to be of national importance for bat and invertebrate assemblages, and at least of county value for other fauna species.
- 4.4.3. A full assessment on impacts to habitats will be detailed within the ES.



4.5. Terrestrial invertebrates

- 4.5.1. The majority of the habitats present were considered likely to support a common assemblage of invertebrate species, typical of arable field margins, hedgerows, woodland and scrub and grassland habitats, however the food source for black hairstreak and brown hairstreak caterpillar, Blackthorn, was recorded abundantly across the Site within hedgerows and woodland areas.
- 4.5.2. A full assessment on impacts to terrestrial invertebrates will be detailed within the ES.

4.6. Great crested newt

- 4.6.1. Habitats within the Order Limits and surrounding areas are suitable for supporting great crested newts. Great crested newts have been confirmed as present within the Order Limits and within 500m of the Order Limits. Great crested newts are a European protected species and are afforded protection under the Conservation of Habitats and Species Regulations 2017 (as amended) as well as the WCA 1981 (as amended) (refer to Annex B for further details). It is therefore likely that the Proposed Development could affect great crested newts. Mitigation for any habitat loss will be dealt with through either a District Level Licence or an EPS licence through Natural England.
- 4.6.2. A full assessment on impacts to great crested newts will be detailed within the ES.

4.7. Reptiles

- 4.7.1. The Site provides limited areas of suitable habitat for common reptile species however this is limited in extent. All species of reptiles in the UK are afforded protection through domestic legislation (refer to **Annex B**) rather than undertake survey to confirm presence which would be disproportionate given the extent of suitable habitat, presence is assumed. Therefore, precautionary measures are required during construction to prevent the killing or injuring reptiles.
- 4.7.2. A full assessment on impacts to reptiles will be detailed within the ES.

4.8. Birds

- 4.8.1. The woodland, hedgerow, scrub and arable field habitats within the Site have been considered suitable to support breeding birds, including species listed on Schedule 1 of the WCA 1981 (as amended) (refer to **Annex B**) and on the red and amber BoCC list.
- 4.8.2. Dedicated breeding and wintering bird surveys have been undertaken and the potential for impacts on bird species will be fully assessed within the ES.



4.9. Bats

- 4.9.1. Multiple trees and woodland blocks within and adjacent to the Order Limits are considered suitable to support roosting bats. Bats are protected under the Habitats Regulations and the WCA 1981 (as amended) (refer to **Annex B**).
- 4.9.2. The Proposed Development Site includes a significant number of hedgerows and arable field margins and is bounded by large woodland areas which are highly suitable foraging and commuting along with, watercourses and larger waterbodies. Paired bat static detector surveys have been undertaken to assess the level of importance of these features to foraging bats and inform mitigation measures that might be required as part of the design proposals. Further details are provided in ES Volume 4, Appendix 7.16: Paired Static Detector Survey Report (2025) [EN010158/APP/6.4].
- 4.9.3. A full assessment on impacts to bats will be detailed within the ES.

4.10. Dormice

4.10.1. Dormice are a European protected species and are afforded protection under the Conservation of Habitats and Species Regulations 2017 (as amended) as well as the WCA 1981 (as amended) (refer to **Annex B**). The areas of woodland within the Site are considered sub-optimal, however the hedgerows within the Site are considered suitable to support this species and provide connectivity to suitable habitat in the wider landscape.

However, given the lack of records of this species in the area it is considered unlikely that this species would be present within the Order Limits.

4.11. Water vole and otter

- 4.11.1. Water voles and otters are protected species in the UK (refer to **Annex B**). Water vole are considered unlikely to be present within the Order Limits due to the lack of suitable habitat.
- 4.11.2. Otter may be present within the waterbodies and watercourses on Site. Should habitat suitable to support this species be impacted by the Proposed Development, further surveys may be required to ascertain whether these species are present and, if they are, the mitigation measures that would be required. A full assessment on impacts to otter will be detailed within the ES.

4.12. Badger

- 4.12.1. Further surveys will be undertaken to identify all badger setts within the Site and within 30m of the Order Limits.
- 4.12.2. A full assessment on impacts to badger will be detailed within the ES.



4.13. Other notable species

4.13.1. The Site provides suitable habitat for European hedgehog, brown hare and polecat and harvest mouse and it is well connected to other suitable habitat in the wider area.

4.14. Validity of data

4.14.1. In accordance with industry guidelines (CIEEM, 2019), unless the Site changes significantly, the desk study and surveys carried out to inform this report should remain valid for at least 18 months. After 18 months, an ecologist would need to reassess the Site to determine if the results remained valid. After three years, the report is unlikely to still be valid and most, if not all, of the surveys are likely to need to be updated (subject to an assessment by an ecologist).



5. Recommendations

5.1. Key constraints to design and construction

- 5.1.1. The Proposed Development has the potential to cause indirect impacts to statutory designated sites, which may have implications to the design of the Proposed Development, and this will be fully assessed within ES.
- 5.1.2. Three non-statutory designated sites are located within the Order Limits and six non-statutory designated sites are located adjacent/within close proximity of the Order Limits, along with multiple areas of ancient woodland. There is potential for the Proposed Development to have impacts to these sites.
- 5.1.3. The majority of habitats present within Proposed Development parcels are considered of low ecological value (arable and modified grassland fields); however, the Proposed Development could lead to direct and indirect impacts to hedgerows, woodland, arable field margins, ponds and scrub habitat.
- 5.1.4. Species which could present potential constraints to the Proposed Development include the following:
 - Terrestrial invertebrates;
 - Great crested newt;
 - Breeding birds;
 - Wintering birds;
 - Bats;
 - Otter; and
 - Badger

5.2. Further surveys required

- 5.2.1. A PEA would normally make recommendations for further surveys. However, given that the survey recommendations have already been undertaken for certain species and this PEA will be included with other baseline information, a list of survey work that has been undertaken to date in addition to this PEA is detailed below:
 - River condition assessment survey undertaken in September 2023 and April 2025 (to inform the Biodiversity Net Gain (BNG) assessment);
 - Otter and water vole surveys undertaken in June and August 2023;
 - Aquatic preliminary surveys undertaken in June 2023;
 - Bat activity surveys undertaken July 2022--September 2023;
 - Wintering bird surveys undertaken November 2023-February 2024;
 - Breeding bird surveys undertaken March 2024-July 2024;



- Bat preliminary roost assessment undertaken in November and December 2024, January and April 2025; and
- Badger surveys undertaken in November and December 2024, January and April 2025.

5.3. Mitigation requirements

5.3.1. Specific mitigation requirements for protected or otherwise notable species and habitats are detailed within ES Volume 2, Chapter 7: Biodiversity [EN010158/APP/6.2].

5.4. Opportunities for enhancement

- 5.4.1. The Environment Act 2021 mandates a statutory requirement for developments to deliver a minimum 10% biodiversity net gain (BNG). Additionally, the National Planning Policy Framework (NPPF) also makes provisions for the delivery of BNG. The Environment Act 2021 mandatory requirement for 10% BNG does not yet apply to Nationally Significant Infrastructure Projects like the Proposed Development. Although not yet mandatory, the Applicant is still committing to achieving this as a minimum level of BNG.
- 5.4.2. Opportunities for habitat creation and enhancement within the Order Limits have been considered, taking into account retention of habitats and ecological features of particular value in the first instance (i.e. those where habitat loss would have significant biodiversity implications). Further measures will be considered as part of the detailed design post consent.



6. References

- AECOM (2022). Rosefield Solar Farm Preliminary Ecological Appraisal
- AECOM (2022). Rosefield Solar Farm Badger Survey Report (Confidential)
- AECOM (2022). Rosefield Solar Farm Bat Preliminary Roost Assessment Report
- AECOM (2022). Rosefield Solar Farm Great Crested Newt Habitat Suitability Index and eDNA Report
- AECOM (2022). Rosefield Solar Farm Wintering Bird Survey Report
- AECOM (2022). Rosefield Solar Farm Report on Surveys for Breeding Birds
- Beebee, T.J.C. & Griffiths, R.A. (2000). Amphibians and Reptiles A Natural History of the British Herpetofauna. HarperCollins, London.
- Buckinghamshire Council (2021). Vale of Aylesbury Local Plan (VALP) 2013-2033. Available online: https://buckinghamshire-gov-uk.s3.amazonaws.com/documents/Aylesbury local plan L46JWaT.pdf
- Buckinghamshire Council (2023). The Local Plan for Buckinghamshire https://www.buckinghamshire.gov.uk/planning-and-building-control/local-development-plans-info/buckinghamshire-local-plan/
- Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020).
 UK Habitat Classification Habitat Definitions V1.1. Available at: https://www.ukhab.org/
- Chartered Institute of Ecology and Environmental Management (2017).
 Guidelines for Preliminary Ecological Appraisal. Technical Guidance Series. Available at: https://cieem.net/resource/guidance-on-preliminary-ecological-appraisal-gpea/
- Chartered Institute of Ecology and Environmental Management (2019).
 Advice Note on the Lifespan of Ecological Reports & Surveys. CIEEM,
 Winchester, Hampshire.
- Conservation of Habitats and Species Regulations 2017. Available online: https://www.legislation.gov.uk/uksi/2017/1012/contents
- English Nature (2001). Great Crested Newt Mitigation Guidelines. English Nature.
- Institute of Environmental Assessment (1995). Guidelines for Baseline Ecological Assessment. Spon, London.
- MAGIC gov.uk. interactive mapping tool run by Natural England.
 Available at: https://magic.defra.gov.uk/
- Ministry of Housing, Communities and Local Government (2024).
 National Planning Policy Framework (NPPF). Available online:



https://www.gov.uk/government/publications/national-planning-policy-framework--2

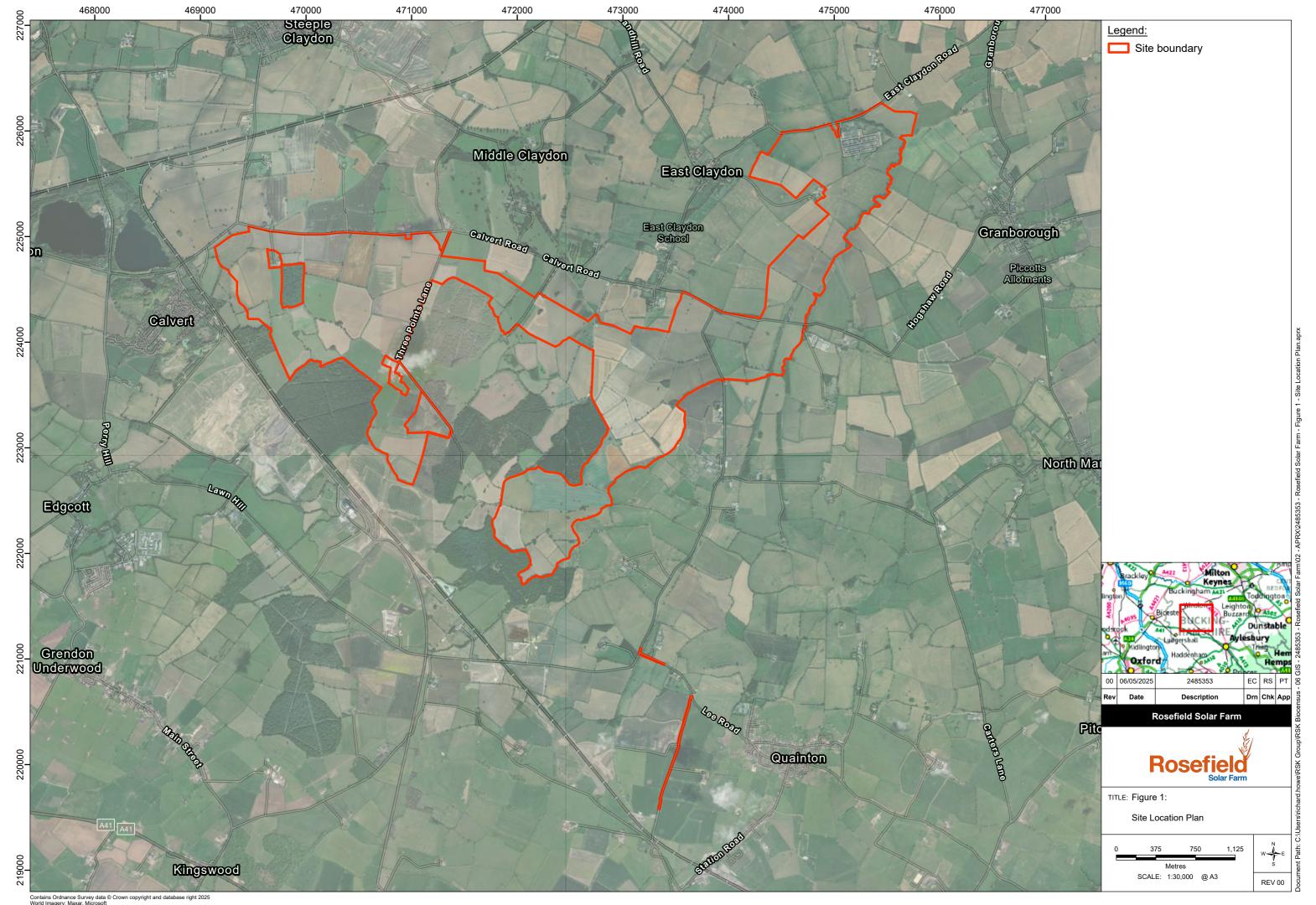
- Natural England (1986). Sheephouse Wood Site of Special Scientific Interest Citation. Available at: https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1001671.pdf
- Natural England (1990). Finemere Wood Site of Special Scientific Interest Citation. Available at: https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1005592.pdf
- Natural England (1984). Grendon and Doddershall Woods Site of Special Scientific Interest Citation. Available at: https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1001328.pdf
- Natural England (1984). Ham Home-Cum-Hamgreen Woods Site of Special Scientific Interest Citation. Available at: https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/100 1358.pdf
- Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus). Herpetological Journal 10 (4): 143-155.
- Poland, J. and Clement, E. (2020). The vegetative key to the British flora Second Edition. John Poland, Southampton.
- Protection of Badgers Act 1992. Available online: https://www.legislation.gov.uk/ukpga/1992/51
- PTES (2019). Hedgehog ecology and land management. People's Trust for Endangered Species & British Hedgehog Preservation Society.
- RSPB (2010). Wild birds and the law, England and Wales. RSPB
- Usher (1986). Wildlife conservation evaluation. Chapman & Hall, London and New York.
- Stace, C.A. (2019). A New Flora of the British Isles (4th edition). C & M Floristics, Middlewich Green.
- Stanbury, A.J., Eaton, M.A., Aebischer, N.J., Balmer, D., Brown, A.F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I. (2021). The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 723-747.].
- The Buckinghamshire & Milton Keynes Natural Environment Partnership (2023). Forward to 2030: Biodiversity Action Plan. Available at: https://bucksmknep.co.uk/download/3338/?tmstv=1692281173



- The Environment Act 2021. Available online: https://www.legislation.gov.uk/ukpga/2021/30/contents
- The Hedgerows Regulations 1997. Available online: https://www.legislation.gov.uk/uksi/1997/1160/made
- The Invasive Alien Species (Enforcement and Permitting) Order 2019.
 Available online:
 https://www.legislation.gov.uk/uksi/2019/527/contents/made
- The Natural Environment and Rural Communities Act 2006. Available online: https://www.legislation.gov.uk/ukpga/2006/16
- The Wildlife and Countryside Act 1981. Available online: https://www.legislation.gov.uk/ukpga/1981/69
- Wild Mammals (Protection) Act 1996. Available online: https://www.legislation.gov.uk/ukpga/1996/3

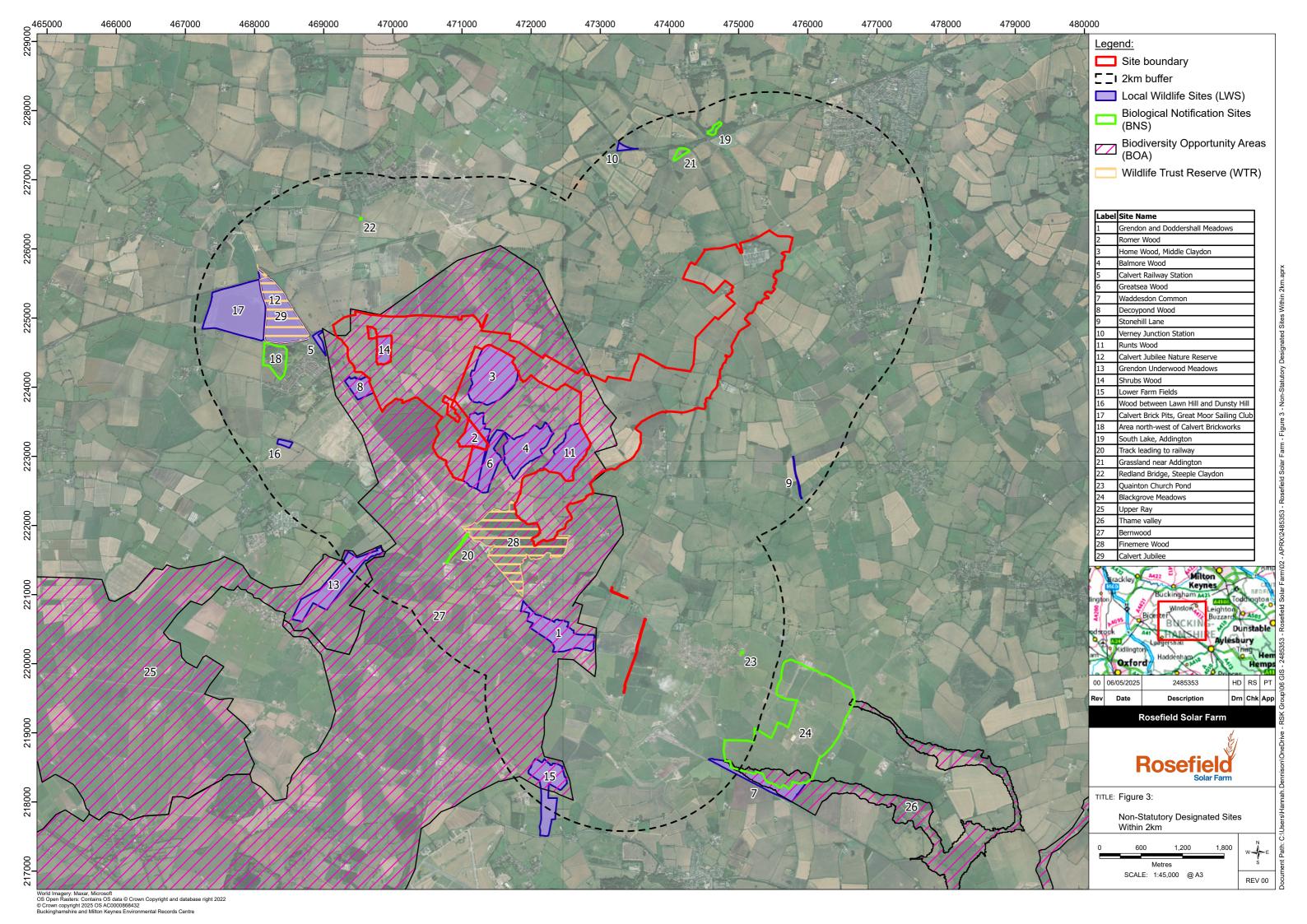
Annex A: Figures

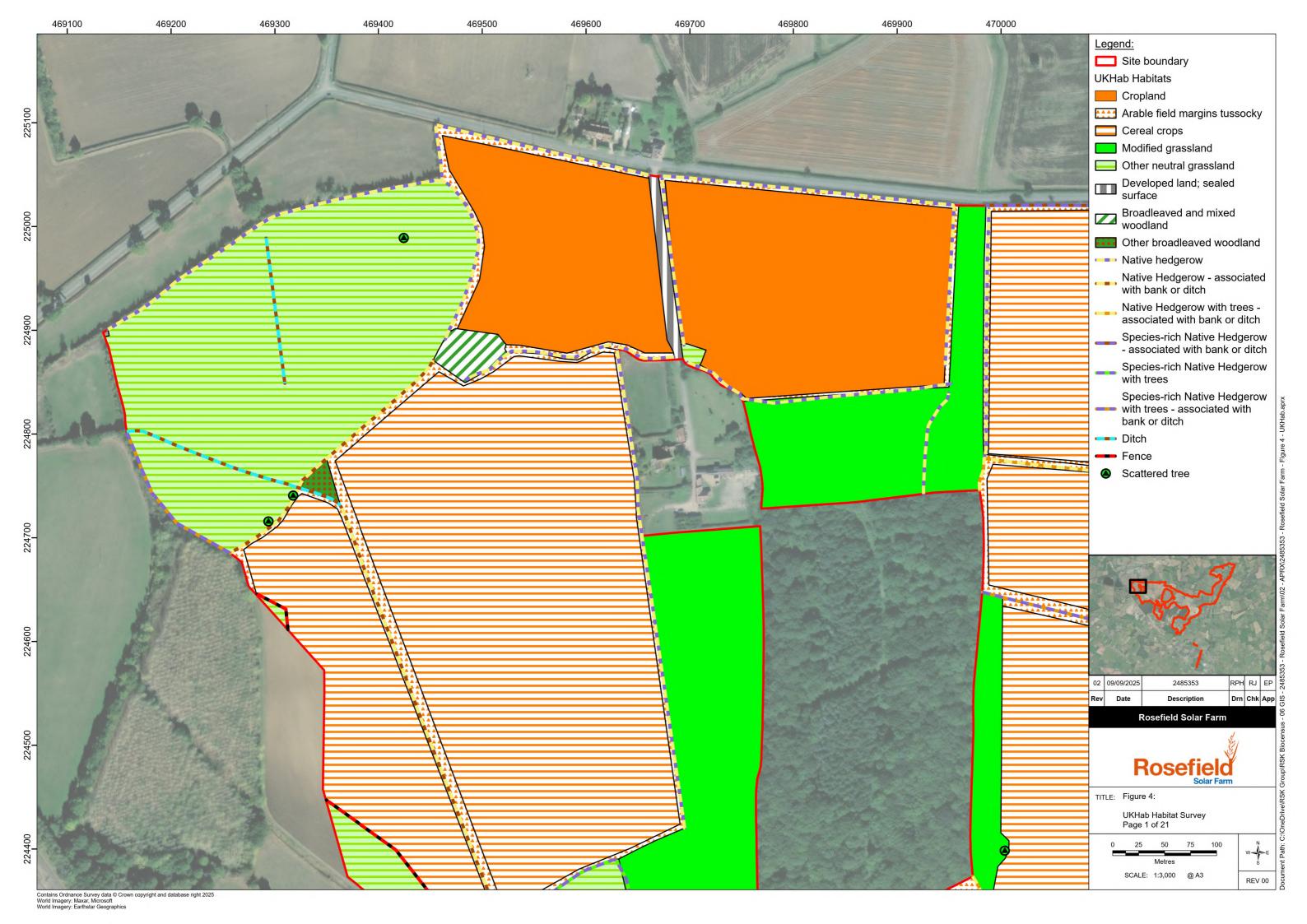


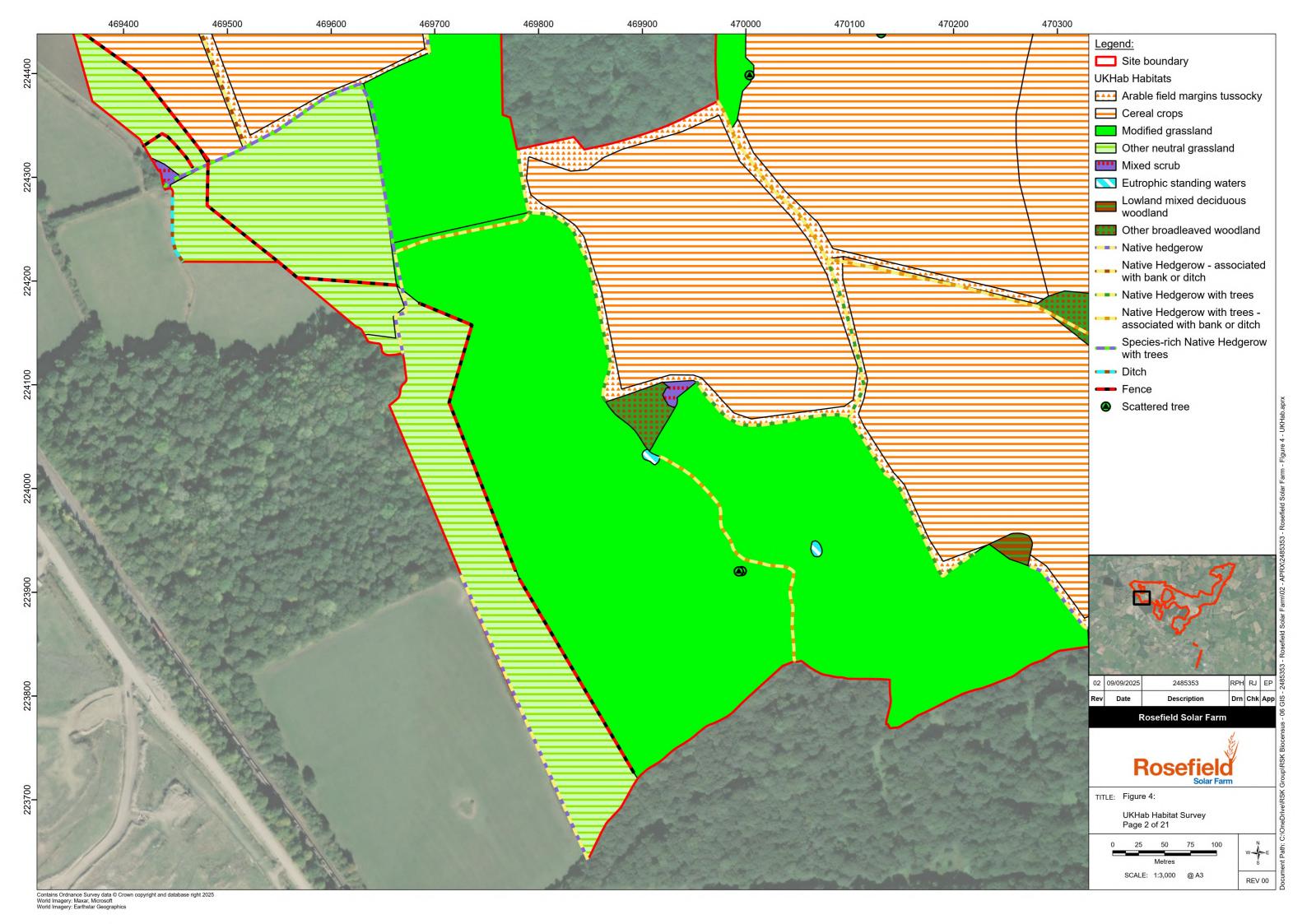


Contains Ordnance Survey data © Crown copyright and database right 2025
World Imagery: Maxar, Microsoft
Hybrid Reference Layer: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
OS Open Rasters: Contains OS data © Crown Copyright and database right 2022



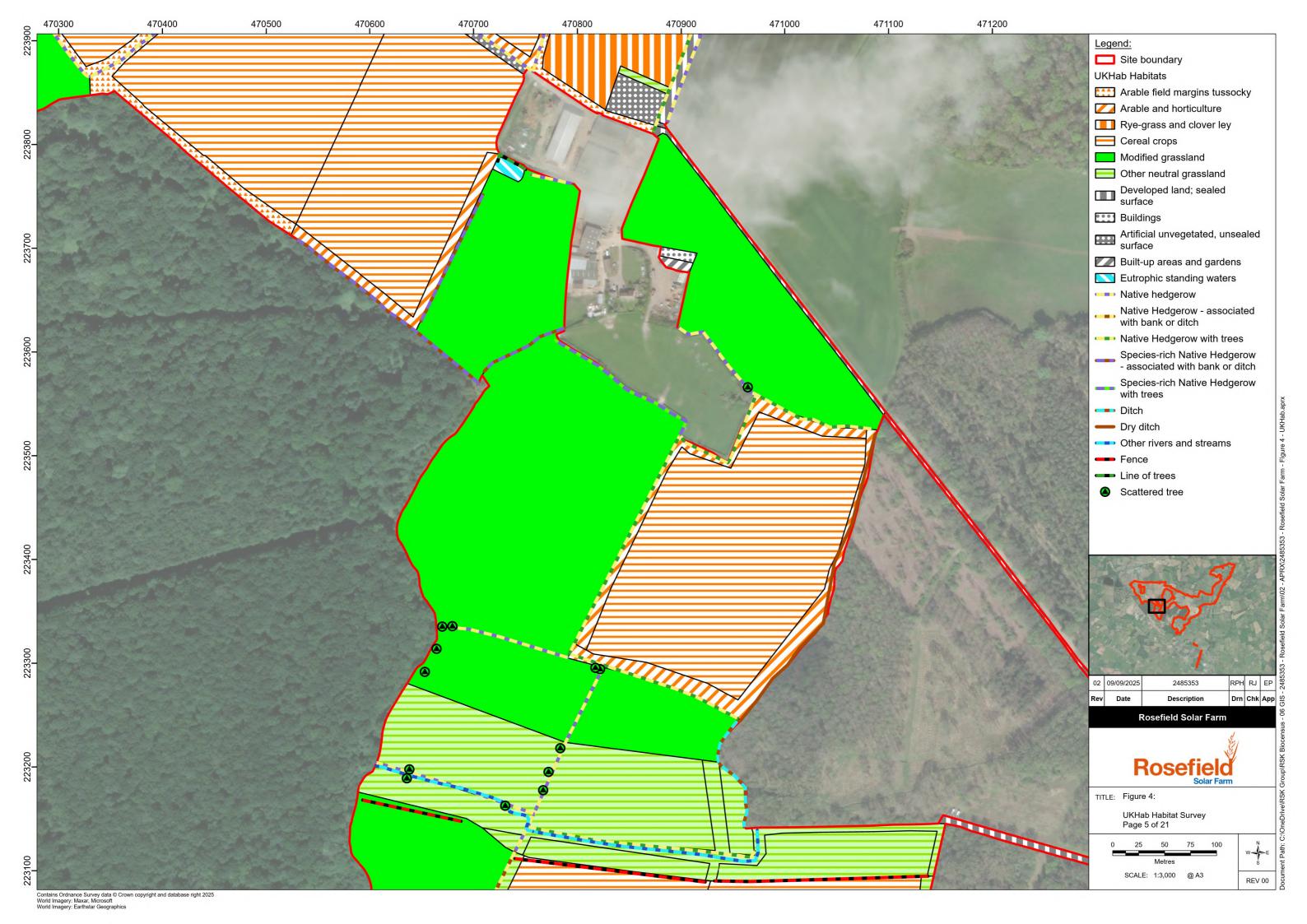


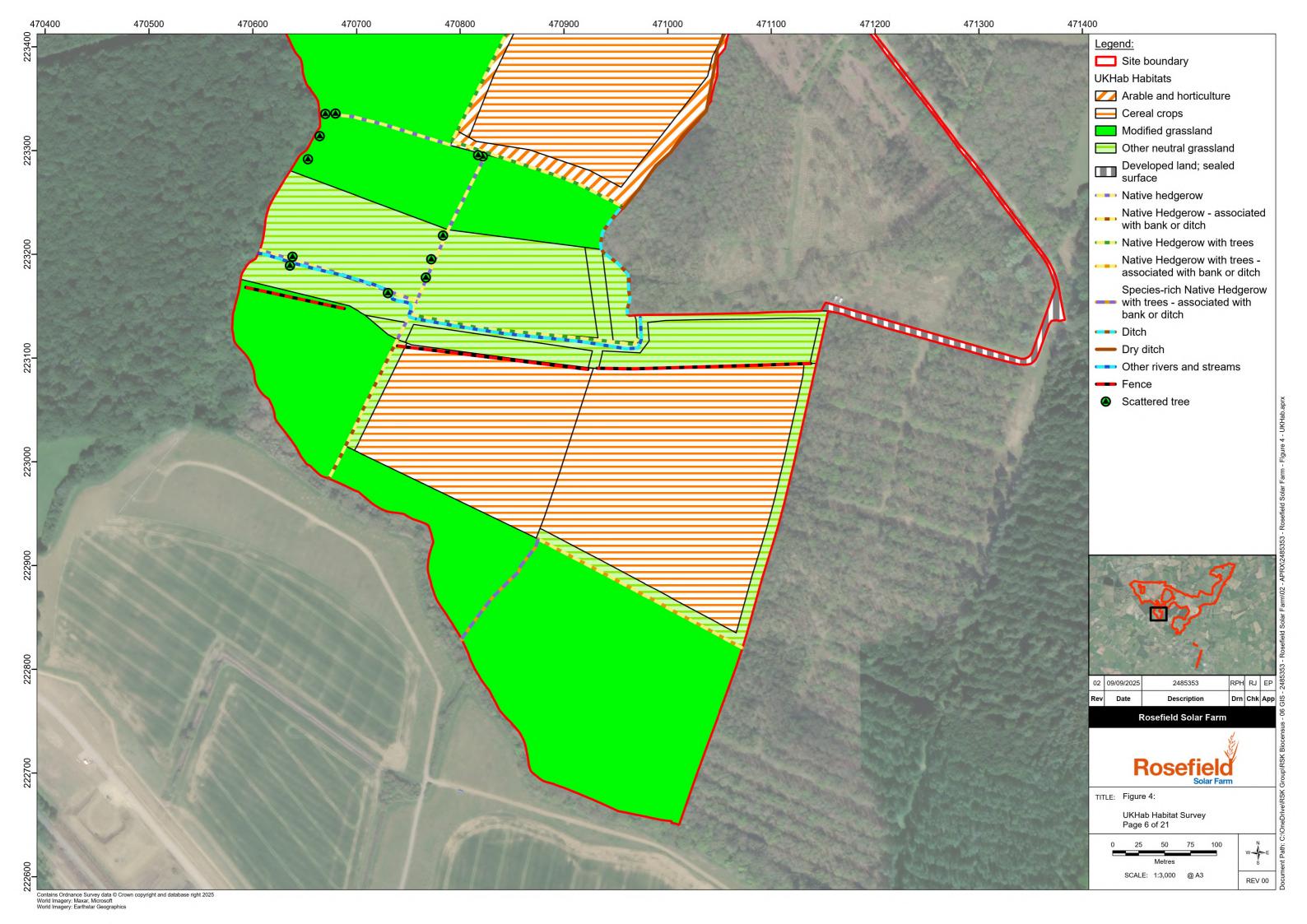


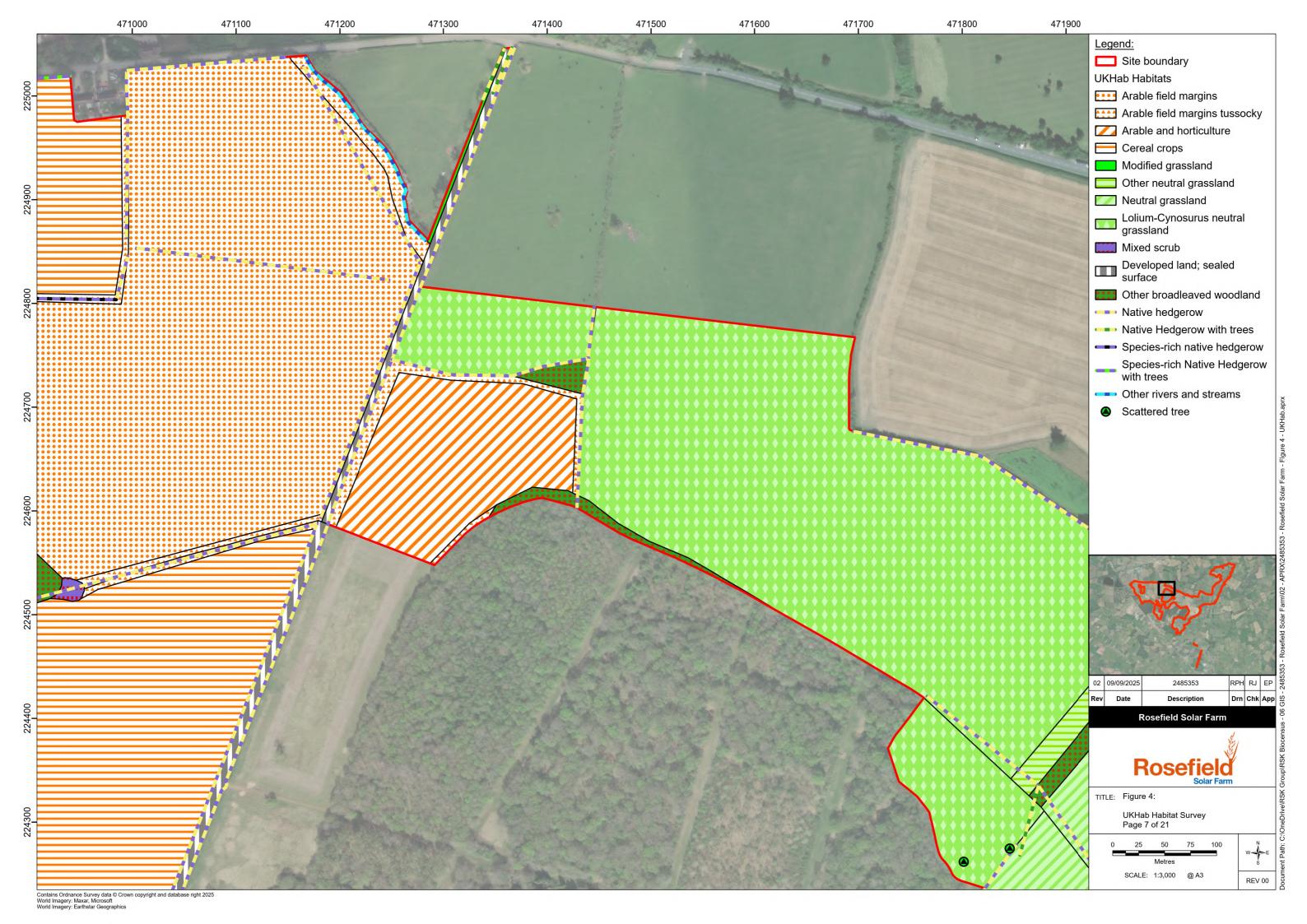


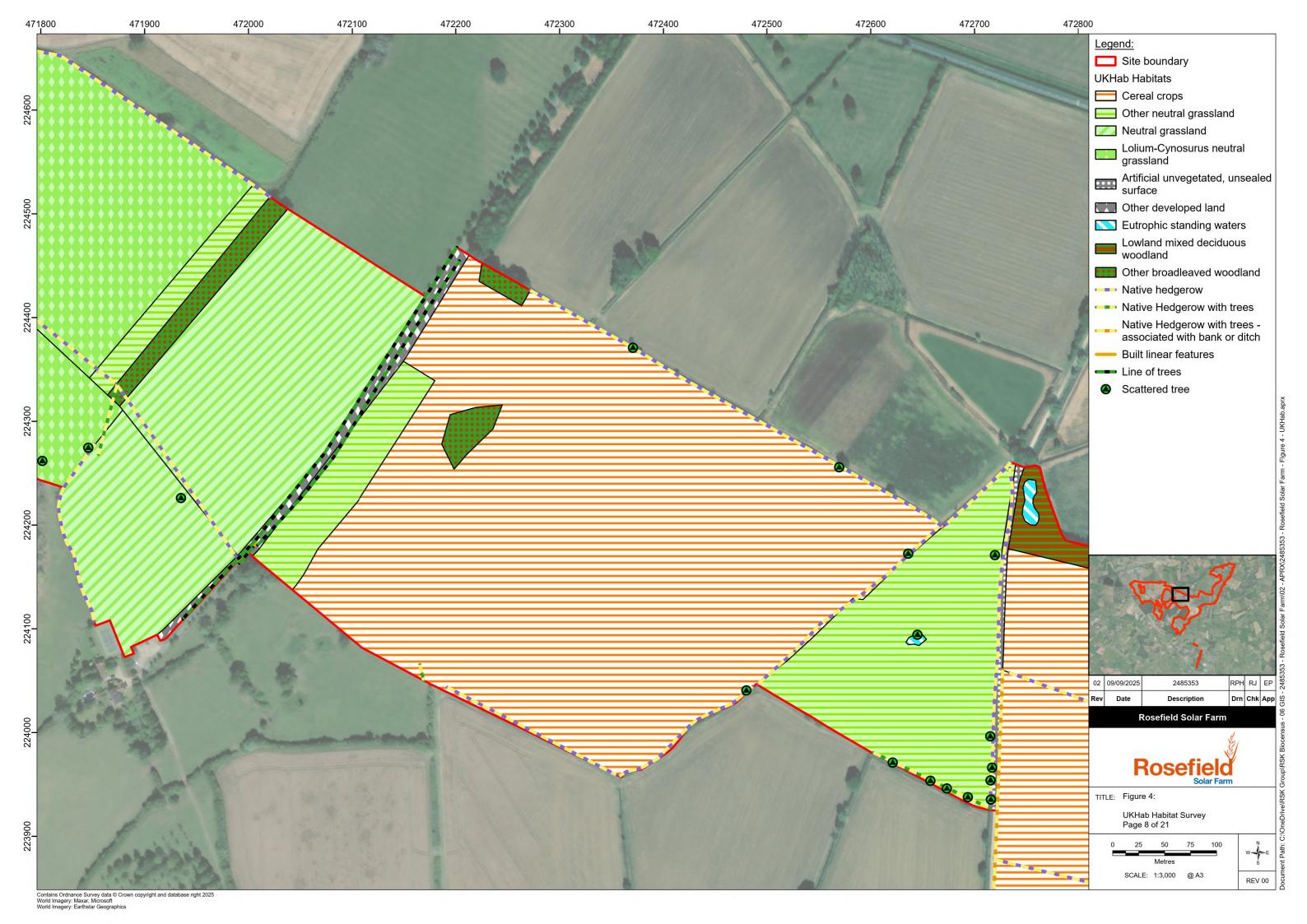


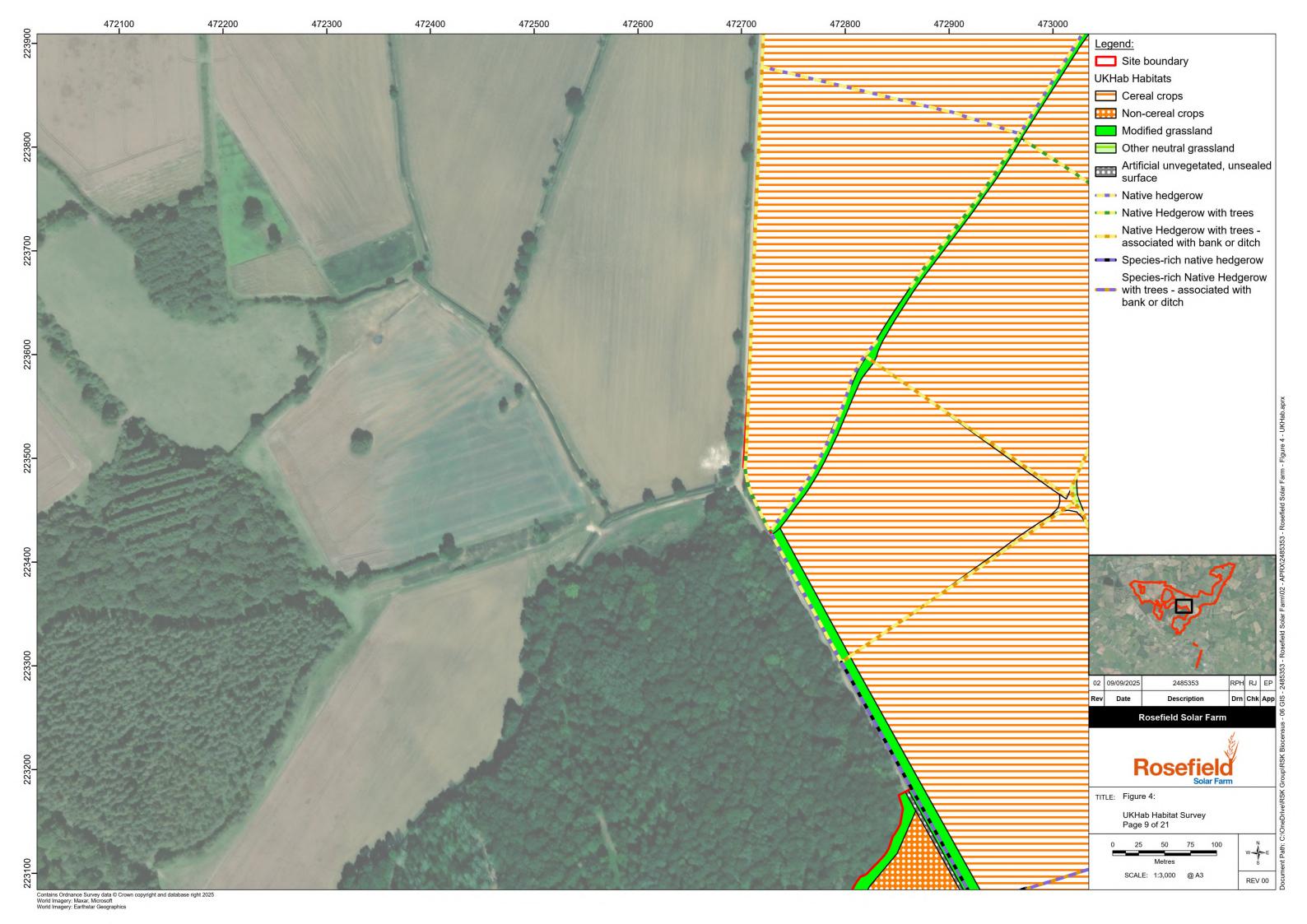


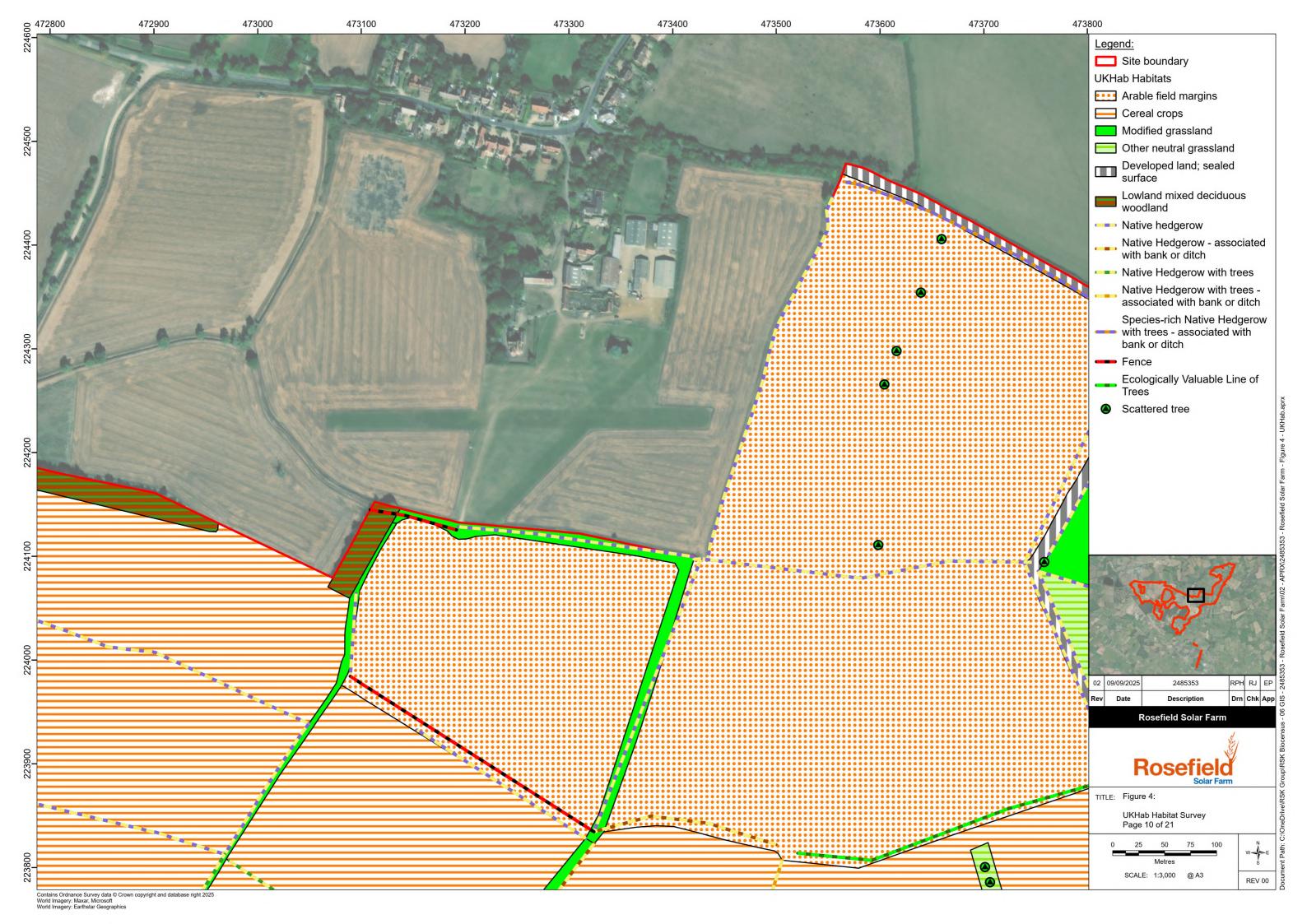




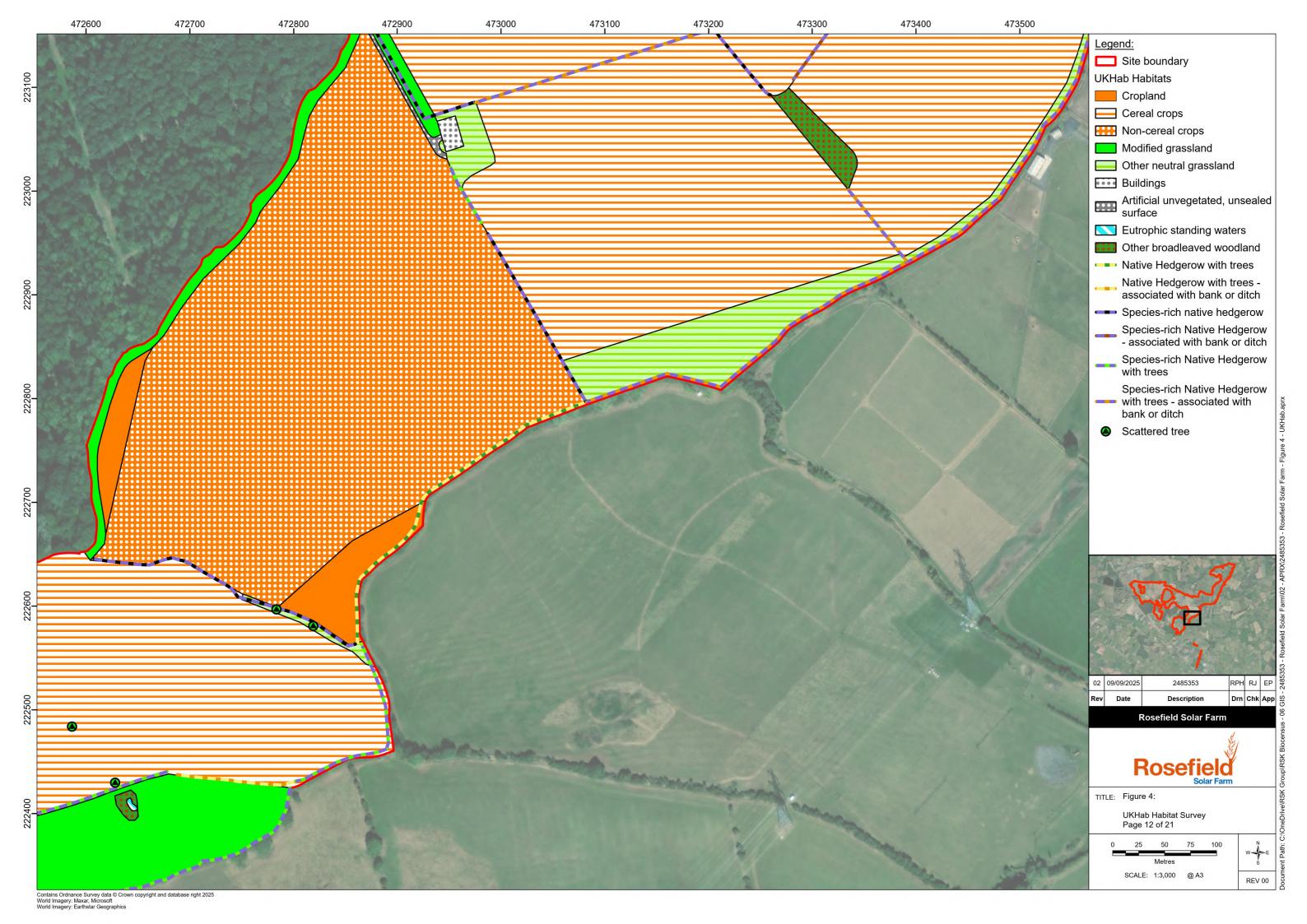


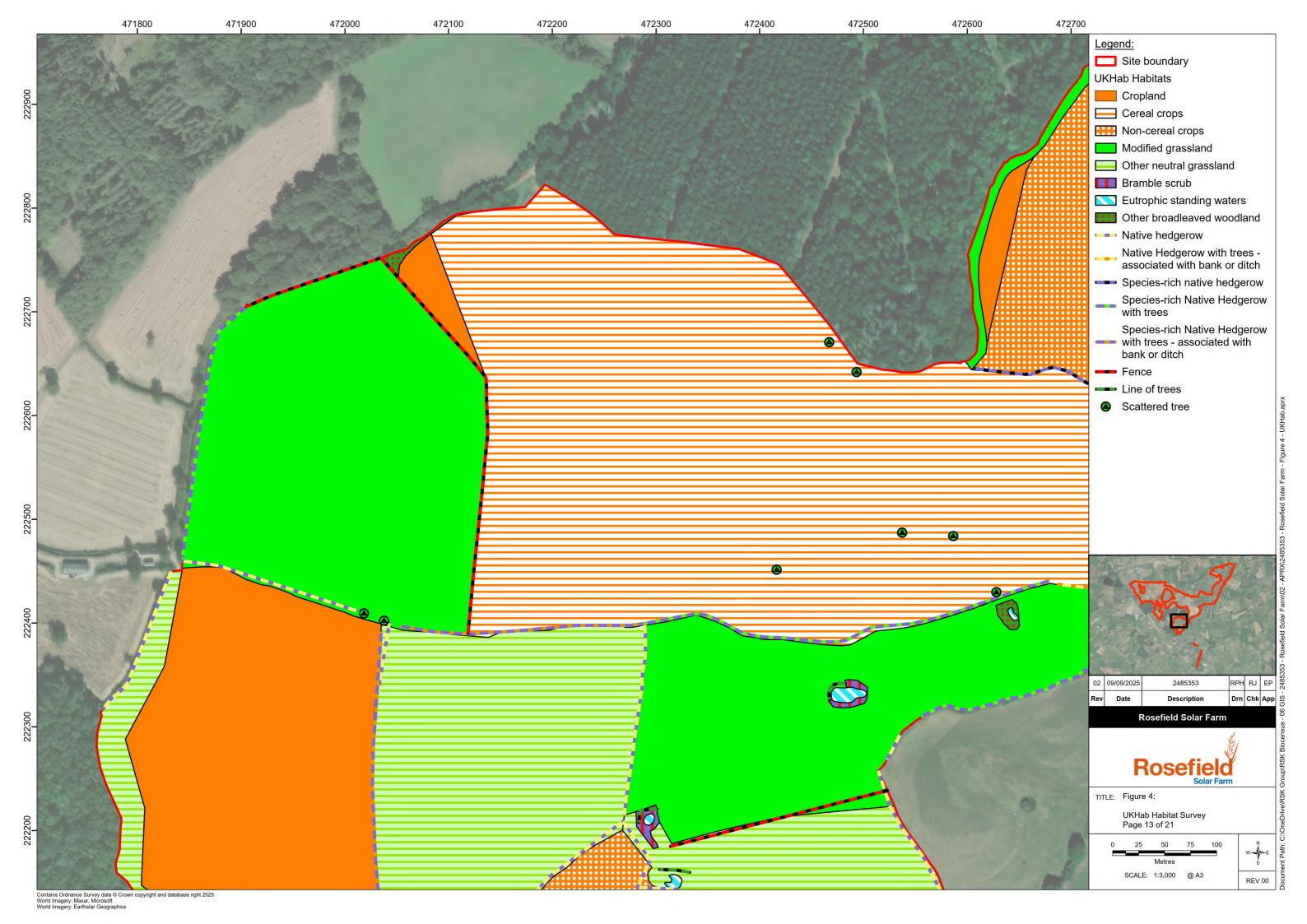


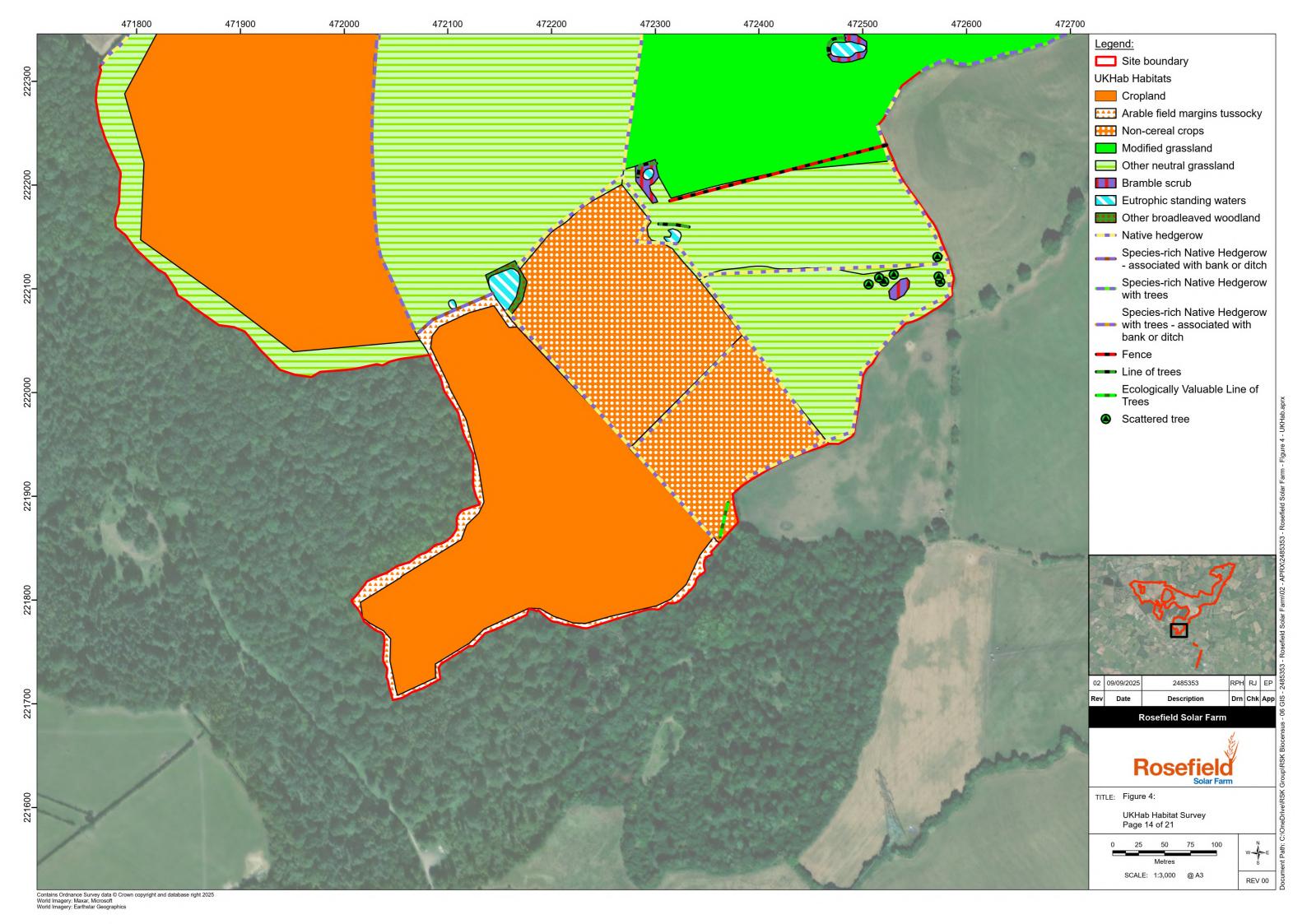


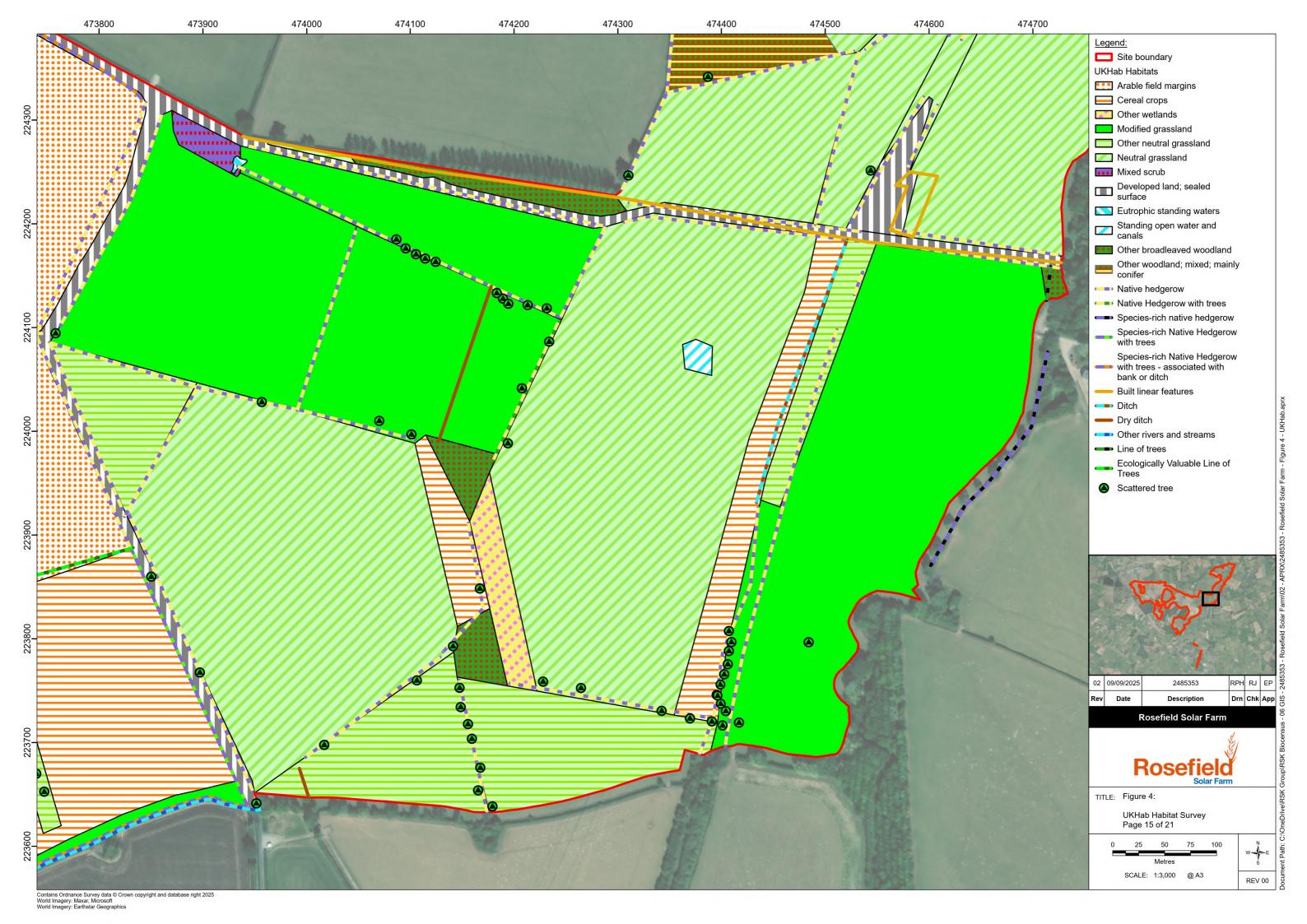


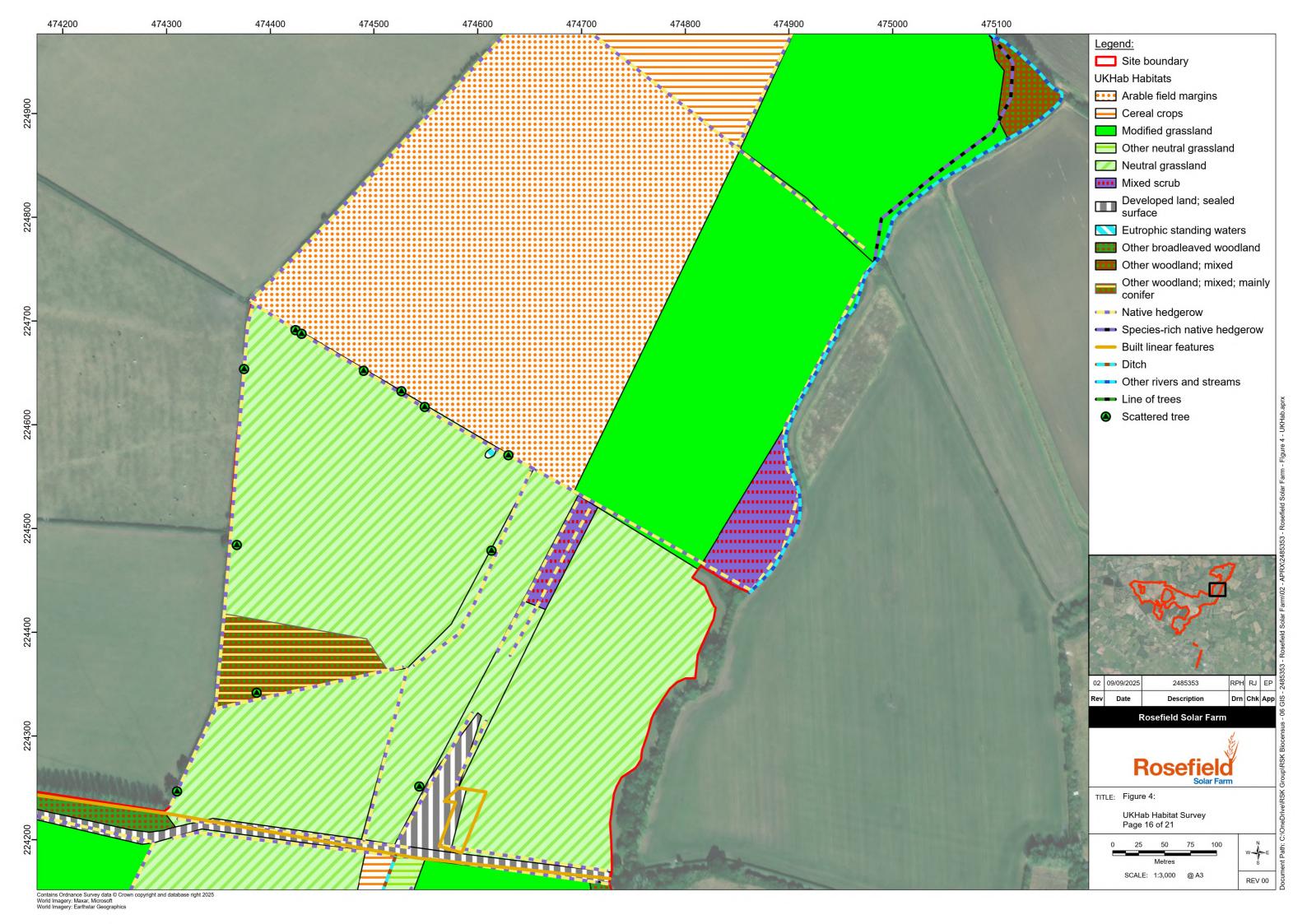






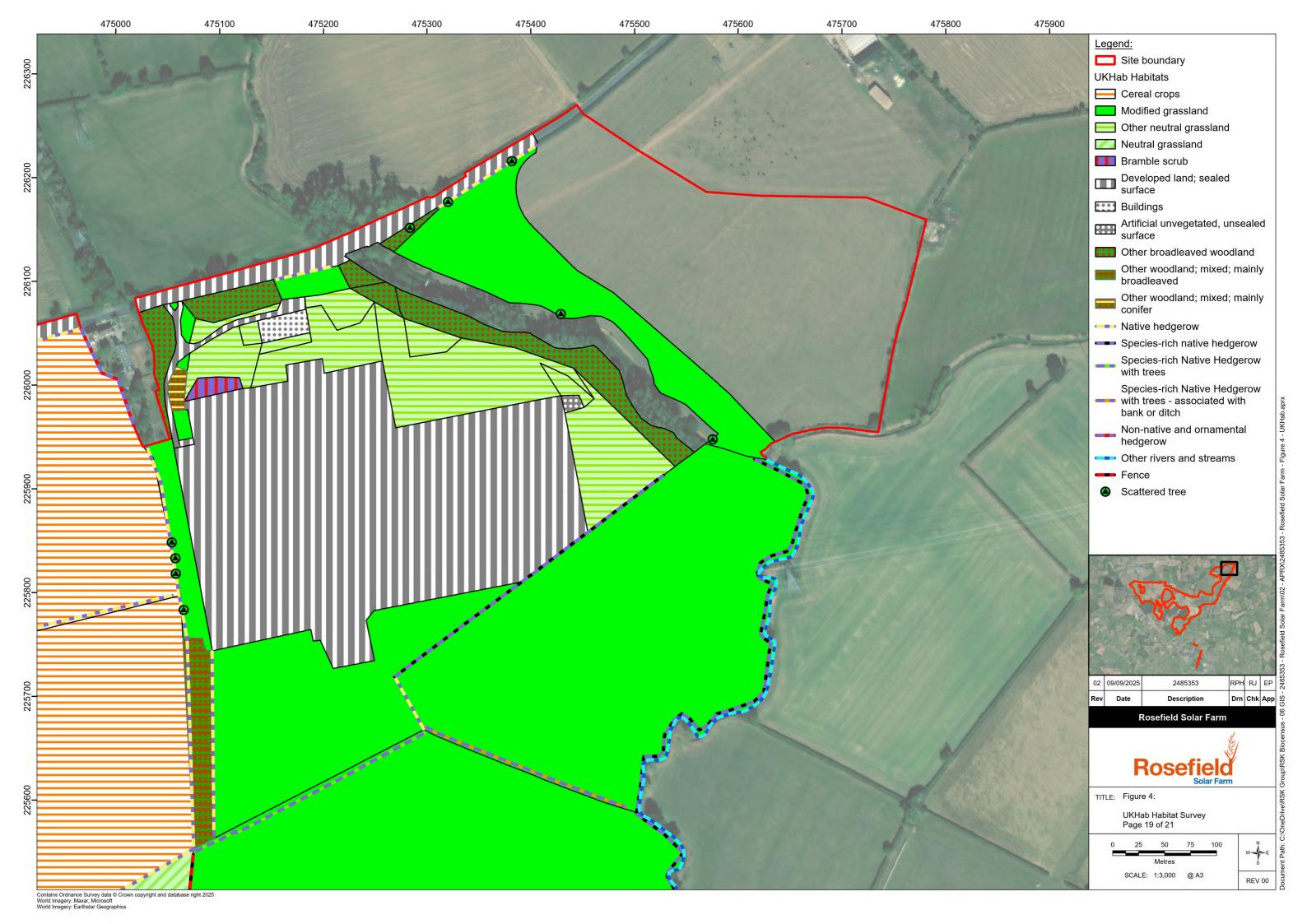




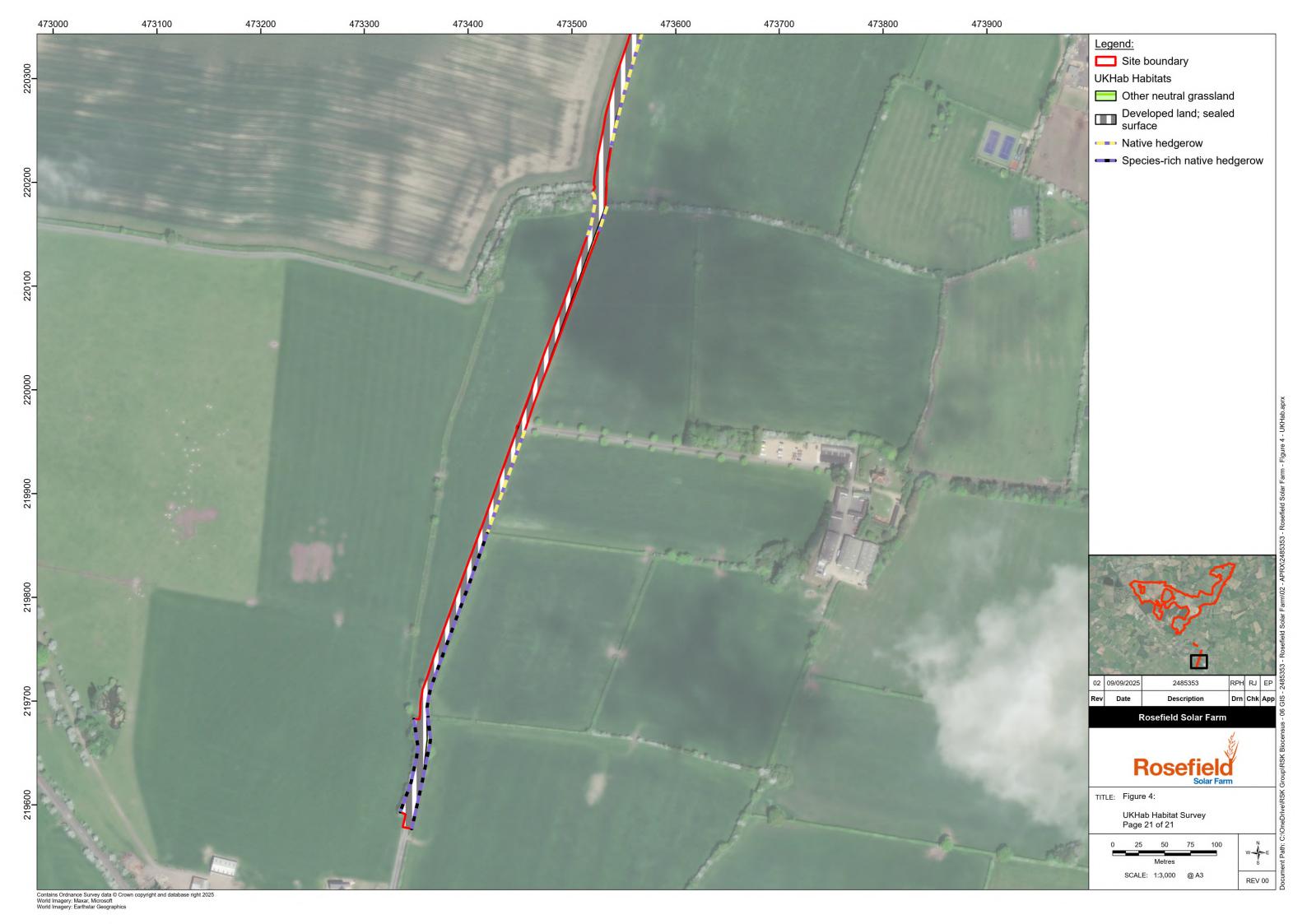






























Contains Ordnance Survey data © Crown copyright and database right 2025 World Imagery: Maxar, Microsoft World Imagery: Earthstar Geographics Target note:



Contains Ordnance Survey data © Crown copyright and database right 2025 World Imagery: Maxar, Microsoft World Imagery: Earthstar Geographics Target note:





Contains Ordnance Survey data © Crown copyright and database right 2025 World Imagery; Maxar, Microsoft World Imagery: Earthstar Geographics Target note:

Annex B: Nature Conservation Legislation and Policy





Annex B – Nature conservation legislation and policy

International legislation

The following international conventions and directives apply to biodiversity protection in the UK. Post-'Brexit', even though European Union (EU) directives no longer directly apply to the UK, the provisions therein are enshrined in both domestic legislation and international agreements. Legislation has been enacted to ensure the regulations derived from these remain in force³.

The Convention on Biological Diversity 1992 et seq.

This multilateral treaty (https://www.cbd.int/doc/legal/cbd-en.pdf), signed by 150 government leaders at the 1992 Rio Earth Summit, has three main goals, of which one is the conservation of biological diversity. Article 6 requires countries to develop national biodiversity strategies, plans or programmes. In response, the UK developed the UK Biodiversity Action Plan (BAP) 1994 (https://jncc.gov.uk/our-work/uk-bap/) as well as county-specific BAPs. Subsequent to this, parties of the convention agreed the supplementary Nagoya Protocol 2010 (available at https://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf), adopting the Strategic Plan for Biodiversity 2011-2020. The purpose of this Strategic Plan was to provide a framework for establishing national and regional biodiversity targets (https://www.cbd.int/doc/strategic-plan/2011-2020/Aichi-Targets-EN.pdf).

Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds (Birds Directive) 2009 https://www.legislation.gov.uk/eudr/2009/147

The Birds Directive 2009 relates to the conservation of all species of naturally occurring birds in their wild state in the territory of the EU Member States (MSs) to which the treaty applies. Under the Birds Directive, the most suitable areas of conservation of the Annex I species are to be designated as Special Protection Areas (SPAs), as part of the European Natura 2000 network. Post Brexit, SPAs are no longer considered part of Natura 2000 and are instead components of the UK's 'national site network', but their highly protected status is unchanged. Maintaining a coherent network of protected sites with overarching conservation objectives is still required in order to fulfil the commitment made by government to maintain environmental protections and continue to meet the UK's international legal obligations.

Application Document Ref: EN010158/APP/6.4 Planning Inspectorate Scheme Ref: EN010158

-

Further information relating to England and Wales can be found here: https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017. A similar exercise has been undertaken in Scotland and Northern Ireland.



Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (Habitats Directive) 1992 https://www.legislation.gov.uk/eudr/1992/43

The Habitats Directive 1992 requires EU MSs to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of community interest, which are listed under Annex I, II, IV and/or V. Species listed under Annex IV are known as 'European Protected Species' (EPS), and have retained their protected status in UK domestic legislation post-Brexit.

Under the Habitats Directive, EU Member States are required to contribute to the Natura 2000 network through the designation of Special Areas of Conservation (SACs) for natural habitat types listed in Annex I and habitats of species listed in Annex II. Post Brexit, SACs are no longer considered part of the European Natura 2000 network and are instead components of the UK's 'national site network', but their highly protected status is unchanged.

The Convention on Wetlands of International Importance Especially as Waterfowl Habitat 1971: the Ramsar Convention https://jncc.gov.uk/our-work/ramsar-convention/

The Ramsar Convention is an intergovernmental treaty focused on the conservation and sustainable use of wetland, primarily as habitats for water birds. Under the convention, each ratified country is required to identify and designate sites (Ramsar sites) that meet the criteria for identifying a wetland of international importance, i.e. containing representative, rare or unique wetland types. In addition, the convention promotes international co-operation to promote the wise use of all wetlands and their resources.

Habitats Regulations Assessment (HRA): a note

There is a requirement under the EU nature directives, and enshrined in country-specific domestic legislation⁴ (see below), to undertake a screening exercise to determine whether any sites that form part of the 'national site network' (formerly Natura 2000) are likely to be significantly affected by any proposal (project or plan). The assessment must consider the proposals alone and also in combination with other plans and projects, if they result from activities that are not directly connected with, or necessary to, the management of the designated sites. If significant effects are likely, an Appropriate Assessment (AA) will need to be carried out. The

Application Document Ref: EN010158/APP/6.4 Planning Inspectorate Scheme Ref: EN010158

_

⁴ In England and Wales: the Conservation of Habitats and Species Regulations 2017 (as amended).

In Scotland: the Conservation (Natural Habitats &c.) Regulations 1994 (as amended).

In Northern Ireland: the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended).

In the UK offshore area: the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended).



screening, any AA, and any subsequent assessment, are collectively known as a Habitats Regulations Assessment (HRA). The HRA needs to take into account each of the 'Qualifying Features' (habitats or species) that justified the site being designated. Ramsar sites are treated in the same way as SACs and SPAs in HRAs, as are sites which have not been fully adopted i.e. candidate SACs (cSACs) and potential SPAs (pSPAs).

The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) 1979

https://jncc.gov.uk/our-work/the-convention-on-the-conservation-of-migratory-species-of-wild-animals/#convention-summary

The Bonn Convention was adopted in 1979 and came into force in 1985. Contracting Parties work together to conserve migratory species and their habitats by providing strict protection for endangered migratory species (listed in Appendix I of the Convention), concluding multilateral agreements for the conservation and management of migratory species which require or would benefit from international cooperation (listed in Appendix II), and by undertaking cooperative research activities. The UK Government ratified the Bonn Convention in 1985. The current legally-binding Agreements under the Convention include EUROBATS⁵.

The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) 1979

https://www.coe.int/en/web/bern-convention

The principal aims of the Bern Convention 1979 are to ensure the conservation and protection of wild plant and animal species and their natural habitats (listed in Appendices I and II of the Convention), to increase cooperation between contracting parties, and to regulate the exploitation of those species (including migratory species) listed in Appendix III. To this end, the Bern Convention imposes legal obligations on contracting parties, protecting over 500 wild plant species and more than 1,000 wild animal species. The UK Government ratified the Bern Convention in 1982.

National legislation

The following pieces of domestic legislation apply to biodiversity protection in the UK.

The Wildlife and Countryside Act (WCA) 1981 (as amended) https://www.legislation.gov.uk/ukpga/1981/69

The Wildlife and Countryside Act 1981 (as amended) is the primary piece of legislation relating to nature conservation in the UK, though it has been adapted in different ways in the devolved administrations. It was initially enacted to implement the Bern Convention, Bonn Convention and the Birds Directive (described above).

Application Document Ref: EN010158/APP/6.4 Planning Inspectorate Scheme Ref: EN010158

More information available at https://jncc.gov.uk/our-work/agreement-on-the-conservation-of-populations-of-european-bats-eurobats



The act is supplemented by provisions in the Countryside and Rights of Way (CRoW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act 2006 and extended in Scotland by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2011). Its equivalent in Northern Ireland is the Wildlife (Northern Ireland) Order 1985 (as amended and similarly extended). In addition to the Habitat Regulations (described below), the WCA 1981 (as amended) provides protection for species listed in Schedules 1 (birds), 5 (other animals) and 8 (plants) of the Act. It provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) in England and Wales⁶. It also sets out, in other schedules, important and invasive species which are legally protected or require management.

All species of bird are protected under the WCA 1981 (as amended). The legislation makes it an offence to intentionally:

- kill, injure or take any wild bird;
- take, damage, or destroy the nest of any wild bird while that nest is in use or being built; or
- · take or destroy an egg of any wild bird.

Those species of birds listed on Schedule 1 of the WCA 1981 (as amended) are afforded additional protection, which deems it an offence to intentionally or recklessly:

- disturb any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or
- disturb dependent young of such a bird.

Under Section 9 of the WCA 1981 (as amended), for animals listed on Schedule 5, it is an offence in England and Wales to intentionally or recklessly:

- kill, injure or take any wild animal listed on Schedule 5*;
 possess or control any live or dead those wild animals or anything derived from it;
- damage or destroy any structure or place which wild animals listed on Schedule 5 uses for shelter or protection;
- disturb any such animal while it is occupying a structure or place of shelter or protection;
- obstruct access to any structure or place used by any such animal for shelter or protection; and

Outy replaced by the Nature Conservation (Scotland) Act 2004 (as amended) and the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985 (as amended) in those countries.



 sell, offer or expose for sale, or have in their possession or transports for the purpose of sale, any live or dead wild animal listed on Schedule 5 or any part of, or anything derived from such an animal.

As noted above, there are minor differences between the offences in England and Wales outlined above, and those in Scotland/Northern Ireland. The three clauses marked with asterisks do not apply to EPS in England and Wales, as these offences are included in the 'Habitats Regulations' (see below). In addition, the Wildlife and Countryside Act 1981 is no longer relevant to EPS in Scotland or Northern Ireland, which instead are afforded full protection by the 'Habitats Regulations' (see below).

In addition to EPS, species commonly found on development sites include water voles (*Arvicola amphibius*) and widespread species of reptiles: common lizard (*Zootoca vivipara*); slow-worm (*Anguis fragilis*); grass snake (*Natrix helvetica*); and adder (*Vipera berus*). These four reptile species receive partial protection, which prevents the intentional or deliberate killing and injuring of reptiles or offering them for sale.

Section 14(2)⁷ states that it is an offence to plant or otherwise cause to grow any plant in the wild at a place outside its native range.

Section 16(i) of the Act makes provision for derogation licences to be issued "for the purposes of preserving public health or public ... safety". For confirmation of this, it would be appropriate to consult the relevant statutory nature conservation body (SNCB)⁸.

Until recently, there has been no provision within the Act for derogation licences to be issued for the purposes of development, although Section 10 provides a defence in cases that may be considered to be: "the incidental result of a lawful operation and could not reasonably have been avoided" if certain conditions are met.

As a result of the Environment Act 2021, the introduction of the 'overriding public interest' ('OPI') test was added to the licensing purposes in the WCA 1981 (as amended), from October 2022, though this only applies in England.

Countryside and Rights of Way Act 2000 https://www.legislation.gov.uk/ukpga/2000/37

The Countryside and Rights of Way (CRoW) Act 2000 provides for public access on foot to certain land types, amends the law for public rights of way, increases protection for SSSIs, and strengthens wildlife enforcement legislation. It applies only in England and Wales.

_

In Scotland, as amended by Section 14 of the Wildlife and Natural Environment (Scotland) Act 2011.

SNCBs are - in England: Natural England; in Wales: Natural Resources Wales; in Scotland: NatureScot; in Northern Ireland: Department of Agriculture, Environment and Rural Affairs (DAERA).



The Hedgerows Regulations 1997 https://www.legislation.gov.uk/uksi/1997/1160/made

The Hedgerows Regulations 1997 provide protection for 'important' hedgerows for which replanting is not a substitute. The 'importance' of a hedgerow depends upon several archaeological, wildlife and landscape criteria (which are outlined in the Regulations). The regulations deem it an offence to remove an 'important hedgerow' without prior notification to the relevant local planning authority.

Protection of Badgers Act 1992 https://www.legislation.gov.uk/ukpga/1992/51

Badgers and their setts are protected under the Protection of Badgers Act 1992 (England, Wales and Scotland). The key part of this legislation in relation to the Proposed Development are in Section 3, which deems it an offence to:

- damage a badger sett or any part of it;
- destroy a badger sett;
- obstruct access to, or any entrance of, a badger sett;
- · disturb a badger when it is occupying a badger sett,
- intend to do any of those things or be reckless as to whether those actions would have any of the consequences listed above.

Derogation licences may be obtained from the relevant SNCB⁸ under Section 10 of the Act for the purpose of development, to permit activities which would otherwise be unlawful.

Note: there are additional provisions relating to badgers under the WCA 1981 (as amended) Section 11 (Prohibition of certain methods of killing or taking wild animals).

The Wild Mammals (Protection) Act 1996 https://www.legislation.gov.uk/ukpga/1996/3

All wild mammals are protected by The Wild Mammals (Protection) Act 1996 (as amended). This makes it an offence to mutilate, kick, beat, nail, or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal.

Invasive Alien Species (Enforcement and Permitting) Order 2019 https://www.legislation.gov.uk/uksi/2019/527/contents/made

The Invasive Alien Species (Enforcement and Permitting) Order applies principally in England and Wales and the UK's offshore marine area, but also controls imports and exports from the UK (including Scotland and Northern Ireland). It lists species of concern which cannot be imported, kept, bred/grown, transported, sold, used, allowed to reproduce, or released into the environment. This Order replaces some elements relating to invasive species in the Wildlife and Countryside Act 1981 (as amended).



National, regional and local policy and guidance of relevance

Planning policy relating to ecology and nature conservation is set out below.

Overarching National Policy Statement for Energy (NPS EN-1) 2023 https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1

Section 5.4 details the planning policy for biodiversity and Environmental Impact Assessment requirements.

National Policy Statement for Renewable Energy Infrastructure (NPS EN-3) 2023 https://www.gov.uk/government/publications/national-policy-statement-for-renewable-energy-infrastructure-en-3

Section 2.10 details the planning policy for solar photovoltaic generation in relation to biodiversity.

National Policy Statement for Electricity Networks Infrastructure (NPS EN-5) 2023 https://www.gov.uk/government/publications/national-policy-statement-for-electricity-networks-infrastructure-en-5

Section 2.5 details the planning policy for environmental and biodiversity net gain. Sections 2.9 and 2.10 discuss biodiversity conservation.

National Planning Policy Framework 2024 https://www.gov.uk/government/publications/national-planning-policy-framework--2

The National Planning Policy Framework (NPPF) sets out the Government's planning policy in England at the national level. It does not contain specific policies for nationally significant infrastructure projects, which are determined in accordance with the decision-making framework in the Act and relevant National Policy Statements for major infrastructure, as well as any other matters that are relevant (which may include the NPPF). Section 15 of the NPPF specifies the requirements for conserving and enhancing the natural environment through the planning and development process to minimise impacts on habitats and biodiversity.

Planning Practice Guidance https://www.gov.uk/government/collections/planning-practice-guidance

The Planning Practice Guidance is a web-resource to support the NPPF, including guidance for Environmental Impact Assessments

(https://www.gov.uk/guidance/environmental-impact-assessment) and the Natural Environment (https://www.gov.uk/guidance/natural-environment). The guidance for the Natural Environment explains key issues in implementing the NPPF to protect and enhance the natural environment, including local requirements. The guidance outlines what evidence needs to be taken into account in preparing planning applications to identify and map local ecological networks. It also outlines how biodiversity can be taken into account in preparing a planning application.



Government's 25-Year Environment Plan 2018 https://www.gov.uk/government/publications/25-year-environment-plan

The Government's 25-Year Environment Plan 2018 sets out how the UK Government intends to improve the natural health of the UK through improving land, air and water quality, as well as setting out how the effects of climate change will be tackled. The plan promotes the creation or restoration of wildlife-rich habitat outside the protected site network and seeks to recover threatened, iconic or economically important species of animals, plants and fungi, and where possible to prevent human induced extinction or loss of known threatened species in England. The plan sets out a number of goals and corresponding policies that look at managing land sustainably, improving and enhancing landscapes and biodiversity for both marine and terrestrial environments, improving resource efficiency and reducing waste and pollution, whilst also examining the UK's contribution to improving the global environment.

Vale of Aylesbury Local Plan https://buckinghamshire-gov-uk.s3.amazonaws.com/documents/Aylesbury local plan L46JWaT.pdf

NE1 Biodiversity and Geodiversity -

Protected Sites

Internationally or nationally important Protected Sites (SACs and SSSIs) and species will be protected. Avoidance of likely significant adverse effects should be the first option. Development likely to affect the Chiltern Beechwoods SAC will be subject to assessment under the Habitat Regulations and will not be permitted unless any significant adverse effects can be fully mitigated.

Development proposals that would lead to an individual or cumulative adverse impact on an internationally or nationally important Protected Site or species, such as SSSIs or irreplaceable habitats such as ancient woodland or ancient trees, will be refused unless exceptional circumstances can be demonstrated as follows:

- a) the benefits of the development at this site significantly and demonstrably outweigh both the impacts that it is likely to have on the features of the site that make it internationally or nationally important and any broader impacts on the national network – for example of Sites of Special Scientific Interest, and
- b) the loss can be mitigated and compensation can be provided to achieve a net gain in biodiversity/geodiversity.

Sufficient information must be provided for the council to assess the significance of the impact against the importance of the Protected Site and its component habitats and the species which depend upon it. This will include the area around the Protected Site and the ecosystem services it provides and evidence that the development has followed the mitigation hierarchy set out in (d) below:



Protection and enhancement of Biodiversity and Geodiversity

Protection and enhancement of biodiversity and geodiversity will be achieved by the following:

- a) A net gain in biodiversity on minor and major developments will be sought by protecting, managing, enhancing and extending existing biodiversity resources, and by creating new biodiversity resources. These gains must be measurable using best practice in biodiversity and green infrastructure accounting and in accordance with any methodology (including a Biodiversity Impact Assessment) to be set out in the Buckinghamshire Biodiversity Accounting SPD.
- b) If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or as a last resort, compensated for, then development will not be permitted. If a net loss in biodiversity is calculated, using a suitable Biodiversity Impact Assessment (see c) then avoidance, mitigation and compensation, on site first, then offsite must be sought so the development results in a net gain (percentage of net gain to meet any nationally-set minimum standard and or as detailed in an SPD) in order for development to be permitted. Mitigation, compensation and enhancement measures must be secured and should be maintained in perpetuity. These assessments must be undertaken in accordance with nationally-accepted standards and guidance (BS 8683 Biodiversity net gain in project design and construction; and CIRIA Biodiversity Net Gain Good practice principles for development).
- c) Development which would result in damage to or loss of a site of biodiversity or geological value of regional or local importance (such as Local Wildlife Sites or Local Geological Sites) including habitats of principal importance (known as Priority Habitats) or the habitats of species of principal importance (Priority Species) or their habitats will not be permitted except in exceptional circumstances where the need for, and benefits of the development significantly and demonstrably outweigh the harm it would cause to the site, and the loss can be mitigated and compensation provided to achieve a net gain.
- d) The Council will, where appropriate, expect ecological surveys for planning applications. These must be undertaken by a suitably qualified person and consistent with nationally accepted standards and guidance (BS 42020: Biodiversity – Code of Practice for planning and development; and CIEEM Ecological Report Writing guidance) as replaced.
- e) Where development proposals affect a Priority Habitat (As defined in the Buckinghamshire Biodiversity Action Plan or UK Biodiversity Action Plan and as listed in accordance with s41 of the NERC Act 2006) then mitigation should not be off-site. Where no Priority Habitat is involved then mitigation is expected to follow the mitigation hierarchy, where options for avoidance, mitigation and compensation on- site, and then offsite compensation, should be followed in that order as outlined in d. When there is a reasonable likelihood of the presence of protected or priority species or their habitats,



development will not be permitted until it has been demonstrated that the Proposed Development will not result in adverse impacts on these species or their habitats. The only exception will be where the advantages of development to the protected site and the local community clearly outweigh the adverse impacts. In such a case, the council will consider the wider implications of any adverse impact to a protected site, such as its role in providing a vital wildlife corridor, mitigating flood risk or ensuring good water quality in a catchment.

- f) Development proposals will be expected to promote site permeability for wildlife and avoid the fragmentation of wildlife corridors, incorporating features to encourage biodiversity, and retain and where possible enhance existing features of nature conservation value on site. Existing ecological networks should be identified and maintained to avoid habitat fragmentation, and ecological corridors including water courses should form an essential component of green infrastructure provision in association with new development to ensure habitat connectivity.
- g) Planning conditions/obligations will be used to ensure net gains in biodiversity by helping to deliver the Buckinghamshire and Milton Keynes Biodiversity Action Plan targets in the biodiversity opportunity areas and other areas of local biodiversity priority. Where development is proposed within, or adjacent to, a biodiversity opportunity area, biodiversity surveys and a report will be required to identify constraints and opportunities for biodiversity enhancement. Development which would prevent the aims of a Biodiversity Opportunity Area from being achieved will not be permitted. Where there is potential for development, the design and layout of the development should secure biodiversity enhancement, and the council will use planning conditions and obligations as needed to help achieve the aims of the biodiversity opportunity area. A monitoring and management plan will be required for biodiversity features on site to ensure their long-term suitable management (secured through planning condition or Section 106 agreement).
- h) Development proposals adversely affecting a Local Nature Reserve will be considered on a case-by-case basis, according to the amount of information available about the site and its significance, relative to the type, scale and benefits of the development being proposed and any mitigation. Any mitigation strategy will need to include co-operation with the nature reserve managers.

Annex C: Noteworthy Species Records





Annex C – Noteworthy species records

Table 5 displays noteworthy species records that are located within 2km of the Order Limits. These species records were obtained from Buckinghamshire and Milton Keynes Environmental Records Centre. The scientific and common names for species are given as well as their level of designation. A glossary defining abbreviations/acronyms used in the table is given in **Table 6**, **Annex D**. If a species is not included in the table below it does not necessarily mean the species is absent from the search area, but that data-holding organizations do not have records of it in these locations.

Table 5: Noteworthy species records within 2km of the Order Limits

Scientific name	Common	Designation		_
	name		Most Recent	Within 100m Within 1km
Fungi				
Sphinctrina turbinata		NS		
Plants				
Anacamptis morio	green-winged orchid	GB RDB(VU), ENG BSBI RDB(VU)		
Bromus secalinus	rye brome	NS		
Buxus sempervirens	box	NR		
Carex vulpina	true fox-sedge	S41, GB RDB(VU), ENG BSBI RDB(VU), NR		
Chenopodium bonus-henricus	Good-King- Henry	GB RDB(VU), ENG BSBI RDB(VU)		
Euphorbia exigua	dwarf spurge	GB RDB(VU), ENG BSBI RDB(VU)		
Genista tinctoria	dyer's greenweed	GB RDB(VU), ENG BSBI RDB(VU)		
Helleborus foetidus	stinking hellebore	NS		
Hippophae rhamnoides	sea-buckthorn	NS		
Hordelymus europaeus	wood barley	NS		



Scientific name	Common name	Designation	Most Recent	Within 100m Within 1km
Hyacinthoides non-scripta	bluebell	WCA8		
Juniperus communis	juniper	S41		
Lithospermum arvense	field gromwell	GB RDB(EN), ENG BSBI RDB(EN)		
Muscari neglectum	grape-hyacinth	S41, NR		
Neottia nidus- avis	bird's-nest orchid	GB RDB(VU), ENG BSBI RDB(VU)		
Nymphoides peltata	fringed water- lily	NS		
Oenanthe fistulosa	tubular water- dropwort	S41, GB RDB(VU), ENG BSBI RDB(VU)		
Pinus sylvestris	scots pine	NS		
Ranunculus flammula	lesser spearwort	GB RDB(VU), ENG BSBI RDB(VU)		
Tilia platyphyllos	large-leaved lime	NS		
Trifolium fragiferum	strawberry clover	GB RDB(VU), ENG BSBI RDB(VU)		
Viola canina	heath dog- violet	GB RDB(VU), ENG BSBI RDB(VU)		
Invertebrates				
Acronicta psi	grey dagger	S41		
Acronicta rumicis	knot grass	S41		
Acupalpus exiguus		NS, Notable:B		
Aderus populneus		NS, Notable:B		
Adscita statices	forester	S41		
Agrilus viridis		NS		
Agrochola Iychnidis	beaded chestnut	S41		



Scientific name	Common name	Designation	Most Recent	Within 100m Within 1km
Allophyes oxyacanthae	green-brindled crescent	S41		
Ampedus elongantulus		Notable:A		
Amphipoea oculea	ear moth	S41		
Amphipyra tragopoginis	mouse moth	S41		
Anaglyptus mysticus		Notable:B		
Anchoscelis litura	brown-spot pinion	S41		
Andrena (Chrysandrena) fulvago	hawksbeard mining bee	Notable:A		
Andrena (Poecilandrena) labiata	red-girdled mining bee	Notable:A		
Anthribus fasciatus		Notable:A		
Anthribus nebulosus		Notable:B		
Apamea anceps	large nutmeg	S41		
Apamea remissa	dusky brocade	S41		
Apatura iris	purple emperor	WCA5		
Aporophyla lutulenta	deep-brown dart	S41		
Arctia caja	garden tiger	S41		
Asteroscopus sphinx	sprawler	S41		
Atethmia centrago	centre-barred sallow	S41		
Atylotus rusticus	four-lined horsefly	NR		



Scientific name	Common name	Designation	Most Recent	Within 100m Within 1km
Boloria euphrosyne	pearl-bordered fritillary	WCA5, S41, GB RDB(EN)		
Boloria selene	small pearl- bordered fritillary	S41		
Bombus ruderarius	red-shanked carder bee	S41		
Bombus ruderatus	large garden bumblebee	S41, Notable:B		
Bombus rupestris	hill cuckoo bee	Notable:B		
Bombylius discolor	dotted bee-fly	NS, Notable		
Brachylomia viminalis	minor shoulder-knot	S41		
Calamotropha paludella	bulrush veneer	Notable:B		
Caradrina morpheus	mottled rustic	S41		
Catoplatus fabricii		Notable:B		
Ceramica pisi	broom moth	S41		
Chiasmia clathrata	latticed heath	S41		
Choerades marginatus	golden-haired robberfly	NS, Notable		
Cirrhia gilvago	dusky-lemon sallow	S41		
Cirrhia icteritia	sallow	S41		
Coenonympha pamphilus	small heath	S41		
Coenonympha tullia	large heath	WCA5, S41, GB RDB(VU)		
Cosmia diffinis	white-spotted pinion	S41		



Scientific name	Common name	Designation	Most Recent	Within 100m Within 1km
Cupido minimus	small blue	WCA5, S41		
Cymatophorina diluta	oak lutestring	S41		
Dendroxena quadrimaculata		Notable:B		
Diarsia rubi	small square- spot	S41		
Diloba caeruleocephala	figure of eight	S41		
Dolichovespula (Dolichovespula) media		Notable:A		
Dropephylla gracilicornis		Notable		
Drymus (Sylvadrymus) pumilio		Notable:B		
Ecliptopera silaceata	small phoenix	S41		
Elegia similella	white-barred knot-horn	Notable:B		
Ennomos erosaria	september thorn	S41		
Ennomos fuscantaria	dusky thorn	S41		
Ennomos quercinaria	august thorn	S41		
Erynnis tages	dingy skipper	S41, GB RDB(VU)		
Ethmia dodecea	dotted ermel	Notable:B		
Eucera Iongicornis	long-horned bee	S41, Notable:A		
Eulithis mellinata	spinach	S41		
Eupachygaster tarsalis	scarce black	NR, Notable		



Scientific name	Common name	Designation	Most Recent	Within 100m Within 1km
Euxoa nigricans	garden dart	S41		
Ferdinandea ruficornis		NS, Notable		
Gelechia nigra	black groundling	Notable:B		
Glaphyra umbellatarum		Notable:A		
Gonodera Iuperus		NS		
Graphiphora augur	double dart	S41		
Helotropha leucostigma	crescent	S41		
Hemistola chrysoprasaria	small emerald	S41		
Hepialus humuli	ghost moth	S41		
Hoplodrina blanda	rustic	S41		
Hydraecia micacea	rosy rustic	S41		
Hypera meles		Notable:A		
Lasioglossum (Evylaeus) pauxillum	lobe-spurred furrow bee	Notable:A		
Lasioglossum (Evylaeus) puncticolle	ridge-cheeked furrow bee	Notable:B		
Lasioglossum malachurum	sharp-collared furrow bee	Notable:B		
Lasiommata megera	wall	S41		
Lasius brunneus	brown tree ant	Notable:A		
Leptidea sinapis	wood white	WCA5, S41, GB RDB(EN)		



Scientific name	Common name	Designation	Most Recent	Within 100m Within 1km
Leucania comma	shoulder- striped wainscot	S41		
Limenitis camilla	white admiral	S41, GB RDB(VU)		
Lithobius (Lithobius) macilentus		NS		
Longitarsus nigrofasciatus		NR, Notable:A		
Lycia hirtaria	brindled beauty	S41		
Macaria wauaria	v-moth	S41		
Magdalis (Porrothus) cerasi		Notable:B		
Malacosoma neustria	lackey	S41		
Malthodes pumilus		NS		
Megalonotus antennatus		Notable:B		
Melanchra persicariae	dot moth	S41		
Microplontus campestris		Notable:B		
Mniotype adusta	dark brocade	S41		
Mordellistena (Mordellistena) neuwaldeggiana		NS		
Myolepta dubia		NS, Notable		
Neocoenorrhinus interpunctatus		Notable:B		
Nephopterix angustella	spindle knot- horn	Notable:B		



Scientific name	Common name	Designation	Most Recent	Within 100m Within 1km
Nymphalis polychloros	large tortoiseshell	WCA5		
Omalium rugatum		Notable		
Oncocera semirubella	rosy-striped knot-horn	Notable:B		
Oria musculosa	brighton wainscot	S41		
Orthochaetes setiger		Notable:B		
Orthonama vittata	oblique carpet	S41		
Orthosia gracilis	powdered quaker	S41		
Osmia (Neosmia) bicolor	red-tailed mason bee	Notable:B		
Osphya bipunctata		NS		
Oxystoma cerdo		Notable:B		
Pechipogo strigilata	common fan- foot	S41		
Perizoma albulata	grass rivulet	S41		
Phytoecia cylindrica		Notable:B		
Platypus cylindrus	pinhole borer	Notable:B		
Poecilium alni		Notable:B		
Polydrusus (Chrysophis) formosus		Notable:A		
Polydrusus (Eustolus) flavipes		Notable:B		



Scientific name	Common name	Designation	Most Recent	Within 100m Within 1km
Polyommatus coridon	chalk hill blue	WCA5		
Protapion varipes		Notable:B		
Psylliodes luteola		NS		
Pterostichus (Pseudomaseus) anthracinus		NS, Notable:B		
Pyrgus malvae	grizzled skipper	S41, GB RDB(VU)		
Rhinocyllus conicus		Notable:A		
Rhizedra lutosa	large wainscot	S41		
Satyrium pruni	black hairstreak	WCA5, GB RDB(EN)		
Satyrium w- album	white-letter hairstreak	WCA5, S41, GB RDB(EN)		
Schoenobius gigantella	giant water- veneer	Notable:B		
Scotopteryx bipunctaria	chalk carpet	S41		
Scotopteryx chenopodiata	shaded broad- bar	S41		
Sitochroa palealis	sulphur pearl	Notable		
Sphecodes rubicundus	red-tailed blood bee	Notable:A		
Spilosoma Iubricipeda	white ermine	S41		
Spilosoma lutea	buff ermine	S41		
Squamapion cineraceum		Notable:A		



Scientific name	Common name	Designation	Most Recent	Within 100m	Within 1km
Stenus (Stenus) pusillus		Notable:B			
Stratiomys Iongicornis	long-horned general	NS			
Temnocerus coeruleus		Notable:B			
Temnocerus Iongiceps		Notable:B			
Thecla betulae	brown hairstreak	WCA5, S41, GB RDB(VU)			
Tholera decimalis	feathered gothic	S41			
Timandra comae	blood-vein	S41			
Tipula helvola		Notable			
Trichiura crataegi	pale eggar	S41			
Tyria jacobaeae	cinnabar	S41			
Watsonalla binaria	oak hook-tip	S41			
Xanthorhoe decoloraria	red carpet	S41			
Xanthorhoe ferrugata	dark-barred twin-spot carpet	S41			
Fish					
Cobitis taenia	spined loach	S41			
Amphibians					
Triturus cristatus	great crested newt	EPS(Sch2), WCA5, S41	2021	XX	
Bufo bufo	common toad	WCA5, S41			
Lissotriton helveticus	palmate newt	WCA5			
Lissotriton vulgaris	smooth newt	WCA5			



Scientific name	Common name	Designation	Most Recent	Within 100m	Within 1km
Rana temporaria	common frog	WCA5			
Reptiles					
Anguis fragilis	slow-worm	WCA5, S41	2018		
Natrix helvetica	grass snake	WCA5, S41	2018	Χ	
Zootoca vivipara	common lizard	WCA5, S41	2020	Χ	
Birds					
Accipiter gentilis	goshawk	WCA1.1	2015	Χ	
Acanthis cabaret	lesser redpoll	S41, Red			
Acanthis flammea	common (mealy) redpoll	Amber, GB RDB(CR)			
Accipiter nisus	sparrowhawk	Amber			
Acrocephalus paludicola	aquatic warbler	S41			
Acrocephalus schoenobaenus	sedge warbler	Amber			
Actitis hypoleucos	common sandpiper	Amber, GB RDB(VU)			
Alauda arvensis	skylark	S41, Red			
Alcedo atthis	kingfisher	WCA1.1	2020		
Anas acuta	pintail	WCA1.2, Amber, GB RDB(CR)	2020		
Anas crecca	teal	Amber			
Anas platyrhynchos	mallard	Amber			
Anser albifrons	white-fronted goose	Red, GB RDB(CR)			
Anser anser	greylag goose	WCA1.2, Amber	2021		
Anser brachyrhynchus	pink-footed goose	Amber			
Anthus pratensis	meadow pipit	Amber			
Anthus trivialis	tree pipit	S41, Red			
Apus apus	swift	Red, GB RDB(EN)			



Scientific name	Common name	Designation	Most Recent	Within 100m Within 1km
Ardea alba	great white egret	Amber		
Arenaria interpres	turnstone	Amber, GB RDB(VU)		
Asio flammeus	short-eared owl	Amber, GB RDB(EN)		
Aythya ferina	pochard	Red, GB RDB(EN)		
Aythya marila	scaup	WCA1.1, S41, Red, GB RDB(EN)	2017	
Botaurus stellaris	bittern	WCA1.1, S41, Amber, GB RDB(VU)	2020	
Branta bernicla	brent goose	S41, Amber		
Branta leucopsis	barnacle goose	Amber		
Bubulcus ibis	cattle egret	Amber		
Bucephala clangula	goldeneye	WCA1.2, Red, GB RDB(VU)	2019	
Calidris alba	sanderling	Amber		
Calidris alpina	dunlin	Red, GB RDB(EN)		
Calidris ferruginea	curlew sandpiper	Amber		
Calidris pugnax	ruff	WCA1.1, Red, GB RDB(CR)	2011	
Cettia cetti	Cetti's warbler	WCA1.1	2020	
Charadrius dubius	little ringed plover	WCA1.1	2017	
Charadrius hiaticula	ringed plover	Red, GB RDB(VU)		
Chlidonias niger	black tern	WCA1.1	2019	
Chloris chloris	greenfinch	Red, GB RDB(EN)		
Chroicocephalus ridibundus	black-headed gull	Amber, GB RDB(VU)		



Scientific name	Common name	Designation	Most Recent	Within 100m Within 1km
Circus aeruginosus	marsh harrier	WCA1.1, Amber	2019	
Circus cyaneus	hen harrier	WCA1.1, S41, Red, GB RDB(VU)	2016	
Clangula hyemalis	long-tailed duck	WCA1.1, Red	2009	
Coccothraustes coccothraustes	hawfinch	S41, Red, GB RDB(EN)		
Columba oenas	stock dove	Amber		
Columba palumbus	woodpigeon	Amber		
Corvus frugilegus	rook	Amber		
Coturnix coturnix	quail	WCA1.1, Amber	2014	
Cuculus canorus	cuckoo	S41, Red, GB RDB(VU)		
Curruca communis	whitethroat	Amber		
Cygnus columbianus	tundra swan	WCA1.1, S41, Red, GB RDB(CR)	2010	
Cygnus cygnus	whooper swan	WCA1.1, Amber, GB RDB(EN)	2017	
Delichon urbicum	house martin	Red, GB RDB(VU)		
Dryobates minor	lesser spotted woodpecker	S41, Red, GB RDB(EN)		
Emberiza citrinella	yellowhammer	S41, Red		
Emberiza schoeniclus	reed bunting	S41, Amber		
Falco columbarius	merlin	WCA1.1, Red, GB RDB(EN)	2020	X
Falco peregrinus	peregrine	WCA1.1	2020	Χ
Falco subbuteo	hobby	WCA1.1	2020	
Falco tinnunculus	kestrel	Amber, GB RDB(VU)		



Scientific name	Common name	Designation	Most Recent	Within 100m Within 1km
Ficedula hypoleuca	pied flycatcher	Amber, GB RDB(VU)		
Fringilla montifringilla	brambling	WCA1.1	2019	Χ
Fulmarus glacialis	fulmar	Amber		
Gallinago gallinago	snipe	Amber		
Gallinula chloropus	moorhen	Amber, GB RDB(VU)		
Gavia arctica	black-throated diver	WCA1.1, Amber, GB RDB(VU)	2008	
Gavia immer	great northern diver	WCA1.1, Amber	2020	
Gulosus aristotelis	shag	Red, GB RDB(EN)		
Haematopus ostralegus	oystercatcher	Amber		
Hydrobates leucorhous	Leach's petrel	WCA1.1, Red	2016	
Hydrobates pelagicus	storm petrel	Amber		
Hydrocoloeus minutus	little gull	WCA1.1	2019	
Ichthyaetus melanocephalus	Mediterranean gull	WCA1.1, Amber	2020	
Jynx torquilla	wryneck	WCA1.1	2016	
Larus argentatus	herring gull	S41, Red, GB RDB(EN)		
Larus cachinnans	Caspian gull	Amber, GB RDB(VU)		
Larus canus	common gull	Amber		
Larus fuscus	lesser black- backed gull	Amber		
Larus glaucoides	Iceland gull	Amber, GB RDB(VU)		



Scientific name	Common name	Designation	Most Recent	Within 100m Within 1km
Larus hyperboreus	glaucous gull	Amber, GB RDB(VU)		
Larus marinus	great black- backed gull	Amber, GB RDB(EN)		
Larus michahellis	yellow-legged gull	Amber, GB RDB(EN)		
Limosa Iapponica	bar-tailed godwit	Amber		
Limosa limosa	black-tailed godwit	WCA1.1, S41, Red, GB RDB(EN)	2015	
Linaria cannabina	linnet	S41, Red		
Locustella naevia	grasshopper warbler	S41, Red		
Luscinia megarhynchos	nightingale	Red, GB RDB(VU)		
Mareca penelope	wigeon	Amber		
Mareca strepera	gadwall	Amber		
Melanitta nigra	common scoter	WCA1.1, S41, Red, GB RDB(CR)	2018	
Mergellus albellus	smew	Red, GB RDB(CR)		
Mergus serrator	red-breasted merganser	Amber, GB RDB(VU)		
Milvus milvus	red kite	WCA1.1	2021	X
Morus bassanus	gannet	Amber		
Motacilla cinerea	grey wagtail	Amber		
Motacilla flava	yellow wagtail	S41, Red		
Motacilla flava flavissima	yellow wagtail	S41, Red		
Muscicapa striata	spotted flycatcher	S41, Red		
Numenius arquata	curlew	S41, Red, GB RDB(EN)		



Scientific name	Common name	Designation	Most Recent	Within 100m Within 1km
Numenius phaeopus	whimbrel	WCA1.1, Red, GB RDB(CR)	2018	
Oenanthe oenanthe	wheatear	Amber		
Pandion haliaetus	osprey	WCA1.1, Amber	2018	
Panurus biarmicus	bearded tit	WCA1.1	2020	
Passer domesticus	house sparrow	S41, Red		
Passer montanus	tree sparrow	S41, Red, GB RDB(VU)		
Perdix perdix	grey partridge	S41, Red, GB RDB(VU)		
Phalaropus lobatus	red-necked phalarope	WCA1.1, Red, GB RDB(EN)	2005	
Phoenicurus phoenicurus	redstart	Amber		
Phylloscopus sibilatrix	wood warbler	S41, Red, GB RDB(VU)		
Phylloscopus trochilus	willow warbler	Amber		
Pluvialis squatarola	grey plover	Amber, GB RDB(VU)		
Podiceps auritus	Slavonian grebe	WCA1.1, Red, GB RDB(CR)	2011	
Podiceps grisegena	red-necked grebe	Red, GB RDB(CR)		
Podiceps nigricollis	black-necked grebe	WCA1.1, Amber, GB RDB(EN)	2019	
Poecile montanus	willow tit	S41, Red, GB RDB(EN)		
Poecile palustris	marsh tit	S41, Red, GB RDB(VU)		
Prunella modularis	dunnock	S41, Amber		



Scientific name	Common name	Designation	Most Recent	Within 100m Within 1km
Pyrrhula pyrrhula	bullfinch	S41, Amber		
Recurvirostra avosetta	avocet	WCA1.1, Amber	2006	
Regulus ignicapilla	firecrest	WCA1.1	2013	
Rissa tridactyla	kittiwake	Red, GB RDB(CR), OSPAR		
Saxicola rubetra	whinchat	Red		
Scolopax rusticola	woodcock	Red, GB RDB(VU)		
Spatula clypeata	shoveler	Amber		
Spatula querquedula	garganey	WCA1.1, Amber, GB RDB(CR)	2020	
Stercorarius parasiticus	Arctic skua	Red, GB RDB(CR)		
Stercorarius skua	great skua	Amber		
Sterna hirundo	common tern	Amber		
Sterna paradisaea	Arctic tern	Amber, GB RDB(VU)		
Sternula albifrons	little tern	WCA1.1, Amber, GB RDB(VU)	2009	
Streptopelia turtur	turtle dove	S41, Red, GB RDB(CR)		
Strix aluco	tawny owl	Amber		
Sturnus vulgaris	starling	S41, Red, GB RDB(VU)		
Tadorna tadorna	shelduck	Amber, GB RDB(EN)		
Thalasseus sandvicensis	sandwich tern	Amber		
Tringa erythropus	spotted redshank	Amber, GB RDB(EN)		
Tringa glareola	wood sandpiper	WCA1.1, Amber, GB RDB(EN)	2011	



Scientific name	Common name	Designation	Most Recent	Within 100m Within 1km
Tringa nebularia	greenshank	WCA1.1, Amber	2017	
Tringa ochropus	green sandpiper	WCA1.1, Amber, GB RDB(EN)	2020	
Tringa totanus	redshank	Amber, GB RDB(VU)		
Troglodytes troglodytes	wren	Amber		
Turdus iliacus	redwing	WCA1.1, Amber, GB RDB(CR)	2021	X
Turdus philomelos	song thrush	S41, Amber		
Turdus pilaris	fieldfare	WCA1.1, Red, GB RDB(CR)	2021	Χ
Turdus torquatus	ring ouzel	S41, Red, GB RDB(VU)		
Turdus viscivorus	mistle thrush	Red, GB RDB(VU)		
Tyto alba	barn owl	WCA1.1	2020	Χ
Upupa epops	hoopoe	WCA1.1	2018	
Vanellus vanellus	lapwing	S41, Red, GB RDB(EN)		
Mammals				
Arvicola amphibius	water vole	WCA5, S41, GB RDB(EN)	2000	
Barbastella barbastellus	western barbastelle	EPS(Sch2), WCA5, S41, GB RDB(VU)	2020	
Chiroptera	bat	EPS(Sch2)	2018	Χ
Eptesicus serotinus	serotine	EPS(Sch2), WCA5, GB RDB(VU)	2012	
Lutra lutra	otter	EPS(Sch2), WCA5, S41	2020	
Meles meles	badger	BA	2019	Χ
Myotis	myotis bat species	EPS(Sch2), WCA5	2020	X
Myotis bechsteinii	Bechstein's bat	EPS(Sch2), WCA5, S41	2016	X



Scientific name	Common name	Designation	ent	Jm n
			Most Recent	Within 100m Within 1km
Myotis brandtii	Brandt's bat	EPS(Sch2), WCA5	2016	X
Myotis daubentonii	Daubenton's bat	EPS(Sch2), WCA5	2014	X
Myotis mystacinus	whiskered bat	EPS(Sch2), WCA5	2020	X
Myotis mystacinus/ brandtii	whiskered/Bra ndt's bat	EPS(Sch2), WCA5	2011	X
Myotis nattereri	Natterer's bat	EPS(Sch2), WCA5	2020	Χ
Nyctalus leisleri	Leisler's bat	EPS(Sch2), WCA5	2020	
Nyctalus noctula	noctule bat	EPS(Sch2), WCA5, S41	2020	X
Pipistrellus	pipistrelle bat species	EPS(Sch2), WCA5	2020	
Pipistrellus nathusii	Nathusius's pipistrelle	EPS(Sch2), WCA5	2020	
Pipistrellus pipistrellus	pipistrelle	EPS(Sch2), WCA5	2020	X
Pipistrellus pygmaeus	soprano pipistrelle	EPS(Sch2), WCA5, S41	2020	X
Plecotus auritus	brown long- eared bat	EPS(Sch2), WCA5, S41	2022	X

Annex D: Glossary, Abbreviations and Acronyms





Annex D – Glossary, abbreviations and acronyms

Table 6: Glossary, abbreviations and acronyms

Table 6: Glossary, abbreviations and acronyms		
Code	Full Title	Explanation
Amber	Amber list	Amber listed species have a population status in the UK of medium conservation concern.
ВАР	Biodiversity action plan	A plan that identifies threats to significantly important species and habitats and sets out targets and actions to enhance or maintain biodiversity.
ENG BSBI RDB	A Vascular Plant Red List for England	A list published in 2014 by the Botanical Society of Britain and Ireland of the red list status of plants in England. Measured against standardised IUCN criteria.
ENG BSBI RDB(CR)	Critically endangered	A BSBI Red List designation for species at an extremely high risk of extinction.
ENG BSBI RDB(EN)	Endangered	A BSBI Red List designation for species at a very high risk of extinction.
ENG BSBI RDB(VU)	Vulnerable	A BSBI Red List designation for species at high risk of extinction.
EPS (Sch 2)	European protected species (Schedule 2)	European protected species of animals, listed on Schedule 2 of The Conservation of Habitats and Species Regulations 2017.
EPS (Sch 5)	European protected species (Schedule 5)	European protected species of plants, listed on Schedule 5 of The Conservation of Habitats and Species Regulations 2017.
GB RDB	Red data book species	Species identified in one of the UK Red Data 2001.
GB RDB(CR)	Critically endangered	An IUCN Red List designation for species at an extremely high risk of extinction.
GB RDB(EN)	Endangered	An IUCN Red List designation for species at a very high risk of extinction.
GB RDB(VU)	Vulnerable	An IUCN Red List designation for species at high risk of extinction.
IUCN	International Union for Conservation of Nature and Natural Resources	A worldwide partnership and conservation network to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.
LBAP	Local biodiversity action plan	A plan that identifies threats to locally important species and habitats and sets out targets and



Code	Full Title	Explanation
		actions in Species Action Plans and Habitat Action Plans to enhance or maintain biodiversity at the county or regional level.
Notable	Scarce and threatened invertebrates	Invertebrate species which are estimated to occur within the range of 16 to 100 10km squares but subdivision into Notable A and Notable B categories is not possible as there is insufficient information available).
Notable: A	Scarce and threatened invertebrates	Taxa which do not fall within Red Data Book categories, but which are none-the-less uncommon in Great Britain and thought to occur in 30 or fewer 10km squares of the National Grid or, for less well-recorded groups, within seven or fewer vice-counties.
Notable: B	Scarce and threatened invertebrates	Taxa which do not fall within Red Data Book categories, but which are none-the-less uncommon in Great Britain and thought to occur in between 31 and 100 10km squares of the National Grid or, for less-well recorded groups between eight and twenty vice-counties.
NR	Nationally rare	Species in 15 or fewer hectads in Great Britain.
NS	National scarce	Species in 16-100 hectads in Great Britain.
Red	Red list	Red listed species have a population status in the UK with high conservation concern.
S41	Species of principal importance	Species of Principal Importance in England under The Natural Environment and Rural Communities (NERC) Act (2006)
UKBAP	UK biodiversity action plan	A plan that identifies threats to locally important species and habitats and sets out targets and actions in species action plans and habitat action plans to enhance or maintain biodiversity in the UK.
WCA	The Wildlife and Countryside Act 1981 (as amended)	Containing 4 Parts and 17 Schedules, the Act covers protection of wildlife (birds, and some animals and plants), the countryside, National Parks, and the designation of protected areas, and public rights of way. All wild plants in Britain are protected from intentional uprooting by an unauthorized person, but landowners, land occupiers, persons authorized by either of these or persons authorized in writing by the local authority for the area are exempt. Protection for some species may be limited to certain Sections of the Act (e.g. S13(2).



Code	Full Title	Explanation
WCA1	Schedule 1 of The Wildlife and Countryside Act 1981 (as amended)	This Schedule lists birds protected by special penalties at all times, but virtually all wild birds have some protection in law. Acts which are prohibited for all wild birds (except derogated 'pest' species) include intentional killing, injuring or taking; taking, damaging or destroying nests in use or being built; taking or destroying eggs; possessing or having control of (with certain exceptions but including live for dead birds, parts or derivative); setting or permitting certain traps, weapons, decoys or poisons. Selling, offering or exposing for sale, possessing or transporting for sale any live wild bird, egg or part of an egg or advertising any of these for sale, or dead wild bird including parts or derivatives are also prohibited. Many birds must be formally registered and ringed if kept in captivity. Schedule I WCA birds are additionally protected from intentional or reckless disturbance while building a nest, or when such a bird is in, on or near a nest containing eggs or young, or intentional or reckless disturbance of dependent young.
WCA5	Schedule 5 of The Wildlife and Countryside Act 1981 (as amended)	Schedule 5 animals are protected from intentional killing, injuring or taking; possessing (including parts or derivatives); intentional or reckless damage, destruction or obstruction of any structure or place used for shelter or protection; selling, offering or exposing for sale, possessing or transporting for the purpose of sale (alive or dead, including parts or derivatives). Protection of some species is limited to certain Sections of the Act (e.g. S9(1), S9(4a), S9(4b), S9(5)).
WCA8	Schedule 8 of The Wildlife and Countryside Act 1981 (as amended)	Plants and fungi protected from intentional picking, uprooting, destroying, trading (including parts or derivatives), <i>etc</i> .

Annex E : Target Notes





Annex E – Target notes

The locations of the following target notes are shown in **Figure 6**.

Target Note number	Description	Photo
1	Mammal path through hedge – Note location not shown due to confidentiality.	
2	Mammal path through hedge - Note location not shown due to confidentiality.	
3	Potential bat roost tree, broken limbs, multiple holes and cracks in bark.	
4	Mammal path in hedge - Note location not shown due to confidentiality.	
5	Group of mature Poplar with bat roost potential.	



Target Note number	Description	Photo
6	Group of mature Oaks with bat roost potential.	
7	Group of mature Poplar with bat roost potential.	



Target Note number	Description	Photo
8	Group of mature Poplar and Oak with bat roost potential.	
9	Yellow meadow anthill in hedge.	
10	Large Poplar, bat roost potential.	



Target Note number	Description	Photo
11	Mature Poplars, low bat roost potential.	
12	Mature Poplar with some ivy coverage and limited dead wood. Low bat roost potential.	
13	Poplar with split. Bat roost potential.	
14	Mammal path - Note location not shown due to confidentiality.	



Target Note number	Description	Photo
15	Slow flow from South to North. Deep and heavily vegetated. Access challenging.	
16	Mature Poplars. Low bat roost potential.	
17	Badger sett. At least 5 active entrances, 3 with recent spoil activity - Note location not shown due to confidentiality.	
18	Latrine close to badger sett - Note location not shown due to confidentiality.	
19	Ash dieback.	



Target Note number	Description	Photo
20	Brown hare sighting.	
21	Oak tree with bat roost potential.	
22	Mature oak, bat roost potential.	
23	Group of ash trees along hedgerow with bat roost potential.	



Target Note number	Description	Photo
24	Ash tree bat roost potential.	
25	Dry pond, only small pools of stagnant water.	
26	Badger sett, 2 entrances, not in use currently - Note location not shown due to confidentiality.	
27	Ash, bat roost potential.	



Target Note number	Description	Photo
28	Standing deadwood.	

Young scattered trees planted Hazel, Blackthorn Rowan, Willow, Elm, Hawthorn.



30 Oak, bat roost potential.





32 Line of Oaks in hedge. Bat roost potential. 33 Mature Oak, with bat roost potential.	Target Note number	Description	Photo
Bat roost potential. Mature Oak, with bat	31	Mature Oak with ivy. Low bat roost potential.	
	32		
	33		
34 Cinnabar moth sighting.	34	Cinnabar moth sighting.	
Marbled white and meadow brown sighting.	35		
	36	Ringlet sighting.	



Target Note number	Description	Photo
37	Comma sighting.	
38	Dead wood resource.	
39	Bat roost potential.	



Old barn, collapsing, wood structure with tin roof. Limited bat roost potential.

40

Rabbit warren.





Target Note number	Description	Photo
42	Bat roost potential.	
43	Gatekeeper sighting.	
44	Yellow meadow ant tussocks.	
45	Dead wood features on tree. Bat roost potential.	
46	Rabbit warren.	
47	Dead wood resource. Good for bats and invertebrates.	



Target Note number	Description	Photo
48	Mature Oak. Bat roost potential.	
49	Bat roost potential.	
50	Multiple Oak trees along hedge with bat roost potential	



Target Note number	Description	Photo
51	Standing and fallen dead wood. Invertebrate and bat roost features.	
52	Bat roost potential.	
53	Bat roost potential.	



Target Note number	Description	Photo
54	Bat roost potential.	
55	Potential outlier sett - Note location not shown due to confidentiality.	
56	Standing deadwood resource, suitable habitat for bat roost and invertebrates.	
57	Bat roost potential.	



Target Note number	Description	Photo
58	Brown hare sighting.	
59	Fallen dead wood.	
60	Bat roost potential.	
61	Multiple honeybee hives.	
62	Small heath butterfly sighting.	
63	Area good for reptiles and inverts. Large white, marbled white, small skipper, ringlet, small tortoiseshell, gatekeeper, meadow brown sightings.	



Target Note number	Description	Photo
64	Bat roost potential.	
65	Lots of deadwood features. Bat roost and invertebrate potential	
66	Fallen willow trunk.	

Good butterfly activity.

Marbled white, meadow
brown, large skipper,
ringlet sightings.



Target Note number	Description	Photo
68	Dry pond.	

69 Bat roost potential.

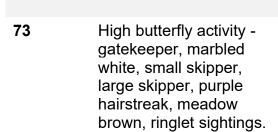


70 Dead wood feature. Bat roost and invertebrate potential.





Target Note number	Description	Photo
71	Trees with bat roost features just outside boundary.	
72	Dead wood resource.	





Target Note number	Description	Photo
74	Bat roost potential.	
75	Bat roost potential.	
76	Oak with bat roost potential.	



Target Note number	Description	Photo
77	Ash with bat roost potential.	
78	Pond containing New Zealand Pigmyweed – Schedule 9 invasive species.	
79	Mammal track (paw prints) to wet ditch and foraging marks.	
80	Ash with bat roost potential.	



Target Note number	Description	Photo	
81	Ash with bat roost potential.		
82	Three badger latrines - Note location not shown due to confidentiality.		
83	Badger foraging marks - Note location not shown due to confidentiality.		
84	Dry pond surrounded by Willow.		
85	Scattered rushes and Hypericum sp.		
86	Inaccessible pond		
87	Badger latrine - Note location not shown due to confidentiality.		
88	Badger latrine - Note location not shown due to confidentiality.		



Target Note number	Description	Photo
89	Inaccessible woodland containing Blackthorn, Rose, Ivy, Ash.	
90	Approx. 30m hedge removed ruderals, long grass and scrub remain. Species include Perennial Ryge-grass, Common Nettle, Bramble Hogweed and Cock's-foot.	
91	Ash tree with bat roost potential, significant decay.	
92	Grassland left uncut, logs present potential hibernacula.	



Target Note number	Description	Photo
93	Bat roost potential - multiple splits and cracks.	
94	Ash with Ivy, unknown bat roost potential features underneath.	
95	Remains of tree – hibernacula potential.	



Target Note number	Description	Photo
96	Lime and machinery stored in corner of field.	
97	Ash tree with knot hole, bat roost potential. Tree has signs of ash die back.	
98	Ash tree with knot hole, bat roost potential.	
99	Burrow present, could be badger but no signs of current use - Note location not shown due to confidentiality.	
100	Mammal path in west of field - Note location not	



Target Note number	Description	Photo
	shown due to confidentiality.	
101	Mammal path - Note location not shown due to confidentiality.	
102	Skylark spotted and heard.	
103	Cuckoo bird heard in woodland.	
104	Pond present adjacent to track road.	
105	Pond.	
106	Mammal path out of hedgerow - Note location not shown due to confidentiality.	
107	Yellow wagtail spotted on Field Maple.	
108	Woodpecker species spotted on semi-mature Oak tree	



Target Note number	Description	Photo
109	Barn owl box - Note location not shown due to confidentiality.	
110	Mammal path running into ditch and through other side - Note location not shown due to confidentiality.	
111	Fallen mature tree, stump offering hibernaculum	
112	Mammal path into hedgerow across ditch - Note location not shown due to confidentiality.	
113	Potential badger spoil heap in woodland, inaccessible from field - Note location not shown due to confidentiality.	
114	Potential badger sett on edge of field margin - Note location not shown due to confidentiality.	
115	Birds nest in Ash tree.	
116	Log pile – hibernacula potential.	
117	Woodpecker holes in Poplar sp. – bat roost potential.	



Target Note number	Description	Photo
118	Log pile – hibernacula potential.	
119	Two fresh badger latrines and two old badger latrines - Note location not shown due to confidentiality.	
120	Badger latrine - Note location not shown due to confidentiality.	
121	Oak with possible bat roosting features under overlapping branches and bark curling into tree.	
122	Disused badger sett hole, 18in high and 25in wide tunnel extending south - Note location not shown due to confidentiality.	
123	Bat roost feature on tree.	
124	Bat roost feature low on side of tree.	
125	Potential bat roosting feature on fallen limb.	
126	Mature Oak with bat roosting potential.	
127	Woodpecker hole – bat roosting potential.	
128	Woodpecker hole – bat roosting potential.	
129	Buddleia sp.	
130	Concrete blocks.	



Target Note number	Description	Photo
131	Large extent of woodland dominated by Poplar species. <i>Populus</i> sp., Aspen, White Poplar (young and bushy growth), Blackthorn, Hawthorn, Sycamore and Alder. Relatively sparse understorey. Ground flora comprised Tufted Hairgrass, Perennial Ryegrass, Creeping Bent, Ground Ivy, <i>Galium sp.</i> and Hemlock (<i>Conium maculatum</i>).	
132	Stream on boundary. approx. 4m wide, murky water, moderate flow, steep banks	
133	Woodland composition changes slightly. Blackthorn, Sycamore, Elder with sparse more shaded understorey.	
134	Woodland comprising Cherry species, Dogwood, Silver Birch, Oak, Holly, Blackthorn, Ash. Sparse understorey recorded.	
135	Badger sett - Note location not shown due to confidentiality.	



Target Note number	Description	Photo
136	Fallen dead Oak tree.	

137 Birds nest



Annex F: Hedgerows Regulations Assessment Details





Annex F – Hedgerows regulations assessment details

This appendix provides details of the assessment under the Wildlife and Landscape Criteria of the hedgerows regulations assessment. The results of these surveys are detailed on **Figure 5**. These Regulations only apply to hedgerows adjacent to land in agricultural/horticultural use. A hedgerow may be classified as 'important' for archaeological/historical reasons, or according to Wildlife and Landscape criteria. To be classified as 'important' under the Wildlife and Landscape criteria, the hedgerow must have been over 30 years old in 1997 and should comprise one of the following:

- at least 7 woody species/30m;
- at least 6 woody species/30m and at least 3 features;
- at least 6 woody species/30m including any one black poplar/wild servicetree/small-leaved lime/large-leaved lime;
- at least 5 woody species and at least 4 features; or
- if adjacent to a bridleway/footpath, at least 4 woody species and at least 2 features.

The presence of a number of features along a hedgerow influences the classification under the Regulations. The terms used on the record sheet are explained below.

Table 7: 'Features' relevant to the Wildlife and Landscape criteria of the Hedgerows Regulations

Regulations	
Feature	Description
Bank/wall	The hedgerow is supported along at least half of its length by a bank/wall.
Intact	The hedgerow contains less than 10% gaps along its length.
Trees	The hedgerow supports at least 1 standard tree per 50m length of hedgerow (standard trees are defined as those which when measured at 1.3m above ground level and have a diameter of at least 20cm, or 15cm for multi-stemmed trees).
3 flora species	The hedgerow supports at least 3 of the valuable ground flora species defined by the Regulations. The hedgerow is considered to support a plant if it is rooted within 1m (in any direction) of the hedgerow.
Ditch	There is a ditch along at least half of the length of the hedgerow.
Connection ≥	A hedgerow must score 4 or more 'connection points' where connections with an adjoining hedgerow(s) score 1 point each, and a connection with a pond or woodland (in which the majority of the trees are broad-leaved) scores 2 points each. A hedgerow is considered to be connected if it meets the feature, or if it has a



Feature	Description
	point within 10m of it and would meet if the line of the hedgerow continued.
Parallel hedgerow	A parallel hedgerow is present within 15m.

N.B. A hedgerow may also be classified as 'important' due to the presence/recorded presence of a particular animal and plant species (see Criteria 6 subparagraphs (1)-(4) of the Regulations for details). This has not been considered in our assessment as we do not currently have data of this type that could contribute to the assessment.

Table 8: Colour codes

Colour code used	Meaning of colour code
	Hedgerow not important
	Important Hedgerow



Hedgerow number	H1	H2	H3	H4	H5	H6	H7	H8
Does the hedgerow classify as 'Important'	No	No	No	No	No	No	No	No
Does the hedgerow rur parallel to a designated bridleway/footpath		X	X	X	✓	X	X	Χ
Black poplar/wild service-tree/small leaved lime/large leave lime	X d	X	X	X	Х	X	Х	Χ
No of woody species per 30m	4	5	2	3	3	3	4	3
Woody species presen recognised by the Hedgerows Regulation	Blackthorn, Elm,	Hawthorn, Blackthorn, Rose, Ash, Oak	Hawthorn, Rose	Hawthorn, Rose, Grey Willow	Hawthorn, Rose, Blackthorn, Elm	Elm, Blackthorn, Hawthorn, Rose	Hawthorn, Blackthorn, Elm, Rose	Hawthorn, Blackthorn, Rose
Other woody species present	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bank/wall	✓	Χ	Χ	Χ	Χ	Χ	Χ	X
Intact	✓	Χ	✓	✓	Χ	Χ	✓	Χ
Trees	✓	✓	Χ	Χ	Χ	Χ	Χ	Χ
Features 3 flora species	Χ	X	Χ	Χ	X	Χ	X	X

Rosefield Solar Farm Environmental Statement Volume 4, Appendix 7.7: Preliminary Ecological Appraisal (2025)



Hedgerow number	H1	H2	H3	H4	H5	H6	H7	H8
Ditch	X	✓	✓	✓	Χ	Χ	✓	✓
Connections	4	5	5	5	4	3	3	5
Parallel hedgerow	Χ	X	Χ	X	X	X	X	Χ



Hedgerow number		H9	H10	H11	H12	H14	H15	H16
Does the hedgerow cl	Does the hedgerow classify as 'Important'		No	No	No	No	No	No
Does the hedgerow rudesignated bridleway	✓	Χ	✓	✓	Χ	Χ	Χ	
Black poplar/wild serv leaved lime/large leaved lime	Χ	X	X	х	X	X	X	
No of woody species	per 30m	4	4	5	3	5	5	4
Woody species present recognised by the Hedgerows Regulations		Hawthorn, Elm, Rose, Field Maple	Hawthorn, Elm, Rose, Field Maple	Rose, Blackthorn, Hawthorn, Oak, Elm	Hawthorn, Field Maple, Hazel	Hawthorn, Ash, Elm, Blackthorn, Oak, Field Maple	Hawthorn, Blackthorn, Elm, Oak, Field Maple	Hawthorn, Elm, Rose, Field Maple
Other woody species	present	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bank/wall	X	Χ	Χ	Χ	Χ	Χ	Χ
	Intact	X	Χ	✓	✓	✓	✓	Χ
	Trees	X	Χ	Χ	Χ	\checkmark	✓	Χ
Features	3 flora species	X	Χ	Χ	Χ	Χ	Χ	Χ
	Ditch	✓	\checkmark	\checkmark	Χ	Χ	Χ	✓
	Connections	2	2	4	2	3	5	2
	Parallel hedgerow	X	X	X	Χ	Χ	X	Χ



Hedgerow nu	mber	H17	H18	H19	H20	H21	H22	H23	H24
Does the hed classify as 'li	_	No	No	No	No	No	No	No	No
Does the hec parallel to a of bridleway/foo	designated	X	X	X	X	X	X	X	X
Black poplar tree/small lea lime/large lea		X	X	Х	X	X	X	X	Х
No of woody 30m	species per	5	5	2	3	4	4	3	2
Woody speci recognised b Hedgerows F	y the	Hawthorn, Blackthorn, Malus Spp., Field Maple, Ash	Hawthorn, Blackthorn, Oak, Malus Spp., Ash	Hawthorn, Rose	Hawthorn, Blackthorn, Ash	Hawthorn, Blackthorn, Ash, Rose	Hawthorn, Blackthorn, Ash, Pedunculate Oak	Hawthorn, Blackthorn, Rose	Ash, Blackthorn
Other woody present	species	Bramble	Bramble	Bramble	Bramble	N/A	N/A	N/A	Bramble
	Bank/wall	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ
	Intact	Χ	Χ	✓	✓	✓	✓	Χ	✓
	Trees	Χ	✓	Χ	✓	Χ	✓	Χ	✓
Features	3 flora species	Χ	Χ	Χ	Χ	Χ	X	Χ	Χ
	Ditch	Χ	✓	X	✓	\checkmark	✓	✓	Χ



Hedgerow nu	ımber	H17	H18	H19	H20	H21	H22	H23	H24
	Connections	5	3	4	4	4	4	2	4
	Parallel hedgerow	X	Χ	X	Χ	X	X	X	X



Hedgerow num	nber	H25	H26	H27	H28	H29	H30	H31	H32
	Does the hedgerow classify as 'Important'		No	No	No	No	No	No	No
Does the hedgerow run parallel to a designated bridleway/footpath		X	Х	X	X	X	X	Х	X
Black poplar/v tree/small leav lime/large leav	ved	X	Χ	X	X	X	X	Χ	X
No of woody s 30m	species per	5	4	5	4	2	3	2	5
Woody specie recognised by Hedgerows R	y the	Ash, Blackthorn, Oak, Elder, Hawthorn	Hawthorn, Rose, Elder, Blackthorn	Elm, Hawthorn, Blackthorn, Ash, Elder and Oak	Ash, Blackthorn, Hawthorn, Hazel	Blackthorn, Hawthorn	Ash, Blackthorn, Hawthorn	Hawthorn, Oak	Blackthorn, Rose, Hawthorn, Field Maple, Ash
Other woody spresent	species	Bramble	Bramble	N/A	Bramble	Bramble	Bramble	Bramble	Bramble
	Bank/wall	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ
	Intact	✓	✓	Χ	✓	✓	✓	✓	✓
	Trees	✓	Χ	\checkmark	✓	✓	✓	✓	Χ
Features	3 flora species	X	X	X	Χ	Χ	Χ	Χ	X
	Ditch	✓	✓	Χ	X	Χ	✓	✓	Χ



Hedgerow number		H25	H26	H27	H28	H29	H30	H31	H32
Conr	nections	4	2	3	4	4	3	4	4
Paral hedg	llel erow	X	Χ	Χ	X	X	Χ	Χ	X



Hedgerow nu	mber	H33	H34	H35	H36	H37	H38	H39	H40
Does the hed	_	No	No	Yes	No	No	No	No	No
Does the hed parallel to a bridleway/foo	designated	X	X	X	Х	X	X	X	Χ
Black poplar tree/small lea lime/large lea		X	X	X	Х	X	X	X	Χ
No of woody 30m	species per	4	5	6	2	5	4	3	3
Woody spec recognised b Hedgerows F	y the	Ash, Hawthorn, Blackthorn, Oak	Field Maple, Oak, Rose, Blackthorn, Elder	Hazel, Oak, Field Maple, Hawthorn, Blackthorn, Ash,	Hawthorn, Blackthorn	Elm, Hawthorn, Dogwood, Blackthorn, Ash	Blackthorn, Ash, Rose, Hawthorn	Blackthorn, Elder, Hawthorn	Blackthorn, Ash, Rose, Hawthorn
Other woody present	species	Bramble	N/A	Bramble	Bramble	Bramble	Bramble	Bramble	N/A
	Bank/wall	Χ	Χ	X	X	Χ	Χ	Χ	Χ
	Intact	✓	Χ	✓	✓	✓	✓	✓	✓
	Trees	✓	✓	✓	X	Χ	Χ	Χ	✓
Features	3 flora species	X	X	X	X	X	X	Χ	X



Hedgerow nu	mber	H33	H34	H35	H36	H37	H38	H39	H40
	Ditch	Χ	Χ	✓	Х	Χ	Х	✓	✓
	Connections	4	3	2	5	4	4	5	4
	Parallel hedgerow	X	Χ	X	Х	X	X	X	X



Hedgerow nui	mber	H41	H42	H43	H44	H45	H46	H47	H48
Does the hed classify as 'li	_	No	No	No	No	No	No	No	Yes
Does the hed parallel to a debridleway/foo	designated	X	X	X	X	X	X	X	X
Black poplar tree/small lea lime/large lea		X	X	X	X	Х	X	X	X
No of woody 30m	species per	4	5	5	5	3	4	5	7
Woody speci recognised b Hedgerows F	y the	Blackthorn, Ash, Field Maple, Hawthorn	Rose, Hawthorn, Blackthorn, Ash, Willow	Blackthorn, Hawthorn, Ash, Rose, Field Maple	Rose, Elm, Hawthorn, Blackthorn, Oak, Ash	Hawthorn, Oak, Blackthorn	Hawthorn, Blackthorn, Rose, Dogwood	Hawthorn, Rose, Wild Privet, Blackthorn, Elder	Hawthorn, Blackthorn, Oak, Ash, Elm, Rose, Field Maple
Other woody present	species	Bramble	Bramble	Bramble	N/A	Bramble	Bramble	N/A	Bramble
	Bank/wall	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X
	Intact	✓	✓	✓	Χ	✓	✓	✓	✓
	Trees	✓	Χ	Χ	\checkmark	\checkmark	Χ	Χ	✓
Features	3 flora species	X	X	X	Χ	X	Χ	X	X



Hedgerow nui	mber	H41	H42	H43	H44	H45	H46	H47	H48
	Ditch	✓	✓	✓	✓	Χ	Χ	Χ	X
	Connections	4	4	3	3	3	2	3	2
	Parallel hedgerow	Χ	Χ	Χ	X	Χ	Χ	Χ	✓



Hedgerow number	H49	H50	H51	H52	H53	H54	H55	H56
Does the hedgerow classify as 'Important'	No	No	Yes	No	Yes	No	No	Yes
Does the hedgerow run parallel to a designated bridleway/footpath	X	X	X	X	X	X	X	X
Black poplar/wild service-tree/small leaved lime/large leaved lime	X	X	X	X	X	X	X	X
No of woody species per 30m	5	3	5	5	5	5	3	6
Woody species present recognised by the Hedgerows Regulations	Hawthorn, Blackthorn, Elder, Ash, Rose, Crab Apple	Hawthorn, Blackthorn, Field Maple, Rose, Elder	Hawthorn, Blackthorn, Rose, Oak, Ash	Hawthorn, Blackthorn, Rose, Field Maple, Ash	Dogwood, Hawthorn, Blackthorn, Oak, Rose, Elder, Field Maple	Blackthorn, Poplar, Ash, Oak, Rose, Hawthorn	Blackthorn, Hawthorn, Rose, Ash	Hawthorn, Blackthorn, Pedunculate Oak, Field Maple, Elm, Rose
Other woody species present	N/A	Bramble	Bramble	N/A	Bramble, Poplar	N/A	N/A	Cypress, Bramble
Bank/wall	Χ	Χ	X	X	X	Χ	Χ	Χ
Intact	✓	\checkmark	✓	✓	✓	✓	✓	✓
Trees	✓	Χ	✓	X	✓	X	\checkmark	✓



Hedgerow r	number	H49	H50	H51	H52	H53	H54	H55	H56
Features	3 flora species	Х	Χ	X	Х	X	Χ	Х	X
	Ditch	\checkmark	\checkmark	✓	✓	X	✓	Χ	X
	Connections	2	4	4	4	4	3	2	2
	Parallel hedgerow	X	Χ	✓	Х	✓	Χ	X	X



Hedgerow number	H57	H58	H59	H60	H61	H62	H63	H64
Does the hedgerow classify as 'Important'	Yes	No	No	No	No	Yes	No	No
Does the hedgerow run parallel to a designated bridleway/footpath	X	Х	Х	X	Х	X	Х	Χ
Black poplar/wild service-tree/small leaved lime/large leaved lime	X	Х	Х	X	X	X	Х	Χ
No of woody species per 30m	7	3	4	3	2	6	5	4
Woody species present recognised by the Hedgerows Regulations	Hawthorn, Oak, Field Maple, Blackthorn, Elm, Rose, Elder	Hawthorn, Blackthorn, Rose, Willow, Oak sp.	Hawthorn, Elder, Field Maple, Blackthorn	Hawthorn, Rose, Elm	Blackthorn, Hawthorn	Hawthorn, Blackthorn, Rose, Field Maple, Oak, Ash, Willow	Hawthorn, Blackthorn, Spindle, Rose, Pedunculate Oak	Hawthorn, Blackthorn, Rose, Pedunculate Oak
Other woody species present	Bramble	N/A	N/A	Bramble	N/A	N/A	N/A	N/A
Bank/wall	X	X	X	Χ	Χ	X	Х	Χ
Intact	✓	✓	✓	✓	✓	✓	✓	✓
Trees	Χ	X	X	Χ	Χ	✓	✓	X



Hedgerow r	number	H57	H58	H59	H60	H61	H62	H63	H64
Features	3 flora species	Χ	Χ	Χ	Х	Χ	Χ	Х	Х
	Ditch	Χ	\checkmark	Χ	✓	\checkmark	✓	\checkmark	✓
	Connections	3	4	4	4	4	4	3	3
	Parallel hedgerow	X	✓	Χ	X	Χ	X	Χ	X



Hedgerow nu	ımber	H65	H66	H67	H68	H69	H70	H71	H72
Does the hed classify as 'l		Yes	Yes	No	Yes	No	No	Yes	Yes
Does the hed parallel to a bridleway/fo	designated	✓	X	Х	✓	✓	X	×	X
Black poplar service-tree/ leaved lime/large lea	/small	X	✓	Х	X	X	X	Х	X
No of woody per 30m	/ species	6	5	5	5	5	3	6	5
Woody spec recognised b Hedgerows F	by the	Oak, Ash, Hawthorn, Blackthorn, Field Maple, Rose, Elder	Hawthorn, Blackthorn, Rose, Field Maple, Pedunculate Oak, Hazel	Hawthorn, Blackthorn, Rose, Field Maple, Pedunculate Oak, Hazel	Oak, Ash, Hawthorn, Blackthorn, Field Maple, Rose	Oak, Ash, Elm, Blackthorn, Hawthorn, Rose	Hawthorn, Blackthorn, Rose, Hazel	Hawthorn, Blackthorn, Willow, Oak, Ash, Spindle	Elder, Blackthorn, Hawthorn, Rose, Elm, Oak
Other woody present	y species	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
В	Bank/wall	X	X	Х	X	X	Χ	X	X
Ir	ntact	✓	✓	✓	✓	✓	Χ	✓	✓
Т	rees	✓	Χ	✓	✓	X	Χ	✓	✓



Hedgerow number		H65	H66	H67	H68	H69	H70	H71	H72
Features	3 flora species	Х	Х	Χ	X	Χ	Х	Х	Х
	Ditch	Χ	✓	Χ	✓	\checkmark	Χ	✓	✓
	Connections	5	5	4	4	3	4	4	4
	Parallel hedgerow	Χ	X	X	X	Χ	X	X	X



Hedgerow number	H73	H74	H75	H76	H77	H78	H79	H80
Does the hedgerow classify as 'Important'	No	No	No	No	Yes	No	No	No
Does the hedgerow run parallel to a designated bridleway/footpath	✓	X	X	X	X	Х	X	X
Black poplar/wild service- tree/small leaved lime/large leaved lime	X	X	X	X	X	Х	X	Х
No of woody species per 30m	5	4	3	4	5	5	4	2
Woody species present recognised by the Hedgerows Regulations	Hawthorn, Blackthorn, Dogwood, Oak, Ash	Hawthorn, Blackthorn, Rose, Elder, Hazel, Ash	Blackthorn, Hawthorn, Rose	Blackthorn, Hawthorn, Field Maple, Rose	Rose, Hawthorn, Blackthorn, Ash, Oak	Hawthorn, Blackthorn, Field Maple, Spindle, Elm, Rose, Ash	Hawthorn, Field Maple, Dogwood, Blackthorn	Hawthorn, Blackthorn
Other woody species present	Bramble	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bank/wall	Χ	Χ	Χ	Χ	X	Х	Χ	Χ
Intact	✓	✓	✓	✓	✓	Х	✓	✓
Trees	\checkmark	Χ	Χ	Χ	✓	✓	Χ	Χ



Hedgerow nu	ımber	H73	H74	H75	H76	H77	H78	H79	H80	
Features	3 flora species	X	Х	Х	Х	Х	Х	Х	Х	
	Ditch	Χ	✓	✓	✓	Х	Χ	Χ	Χ	
	Connections	6	5	2	4	3	5	3	1	
	Parallel hedgerow	Х	Χ	X	X	Χ	X	X	Χ	



Hedgerow number	H81	H82	H83	H84	H85	H86	H87	H88
Does the hedgerow classify as 'Important'	No	Yes	No	Yes	No	Yes	No	No
Does the hedgerow run parallel to a designated bridleway/footpath	✓	✓	Х	✓	✓	√	Х	Χ
Black poplar/wild service-tree/small leaved lime/large leaved lime	Χ	X	Х	×	X	×	Х	Χ
No of woody species per 30m	5	4	5	4	5	6	4	6
Woody species present recognised by the Hedgerows Regulations	Field Maple, Hawthorn, Blackthorn, Elder, Ash, Pedunculate Oak	Hawthorn, Blackthorn, Elder, Field Maple, Rose	Hawthorn, Blackthorn, Spindle, Elder, Ash, Oak, Field Maple	Hawthorn, Blackthorn, Field Maple, Ash, Elder	Hawthorn, Blackthorn, Field Maple, Ash, Elder	Hawthorn, Blackthorn, Rose, Elm, Ash, Oak	Hawthorn, Blackthorn, Elder, Ash, Rose, Elm	Hawthorn, Blackthorn, Elm, Hazel, Field Maple, Rose, Ash
Other woody species present	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bank/wall	Χ	X	X	X	Х	X	Х	Χ
Intact	✓	✓	✓	✓	✓	✓	✓	✓
Trees	✓	X	X	✓	✓	✓	X	Χ



Hedgerow number		H81	H82	H83	H84	H85	H86	H87	H88
Features	3 flora species	Χ	Х	Х	Х	Х	Х	Х	X
	Ditch	\checkmark	✓	Χ	X	Χ	X	Х	X
	Connections	3	3	2	5	4	4	4	3
	Parallel hedgerow	X	X	X	X	Х	X	Χ	X



Hedgerow number	H89	H90	H91	H92	H93	H94	H95	H96
Does the hedgerow classify as 'Important'	No	No	No	No	No	Yes	No	No
Does the hedgerow run parallel to a designated bridleway/footpath	✓	✓	X	X	X	X	Х	X
Black poplar/wild service- tree/small leaved lime/large leaved lime	X	X	X	X	X	X	X	X
No of woody species per 30m	6	5	5	5	5	7	5	5
Woody species present recognised by the Hedgerows Regulations	Hawthorn, Blackthorn, Field Maple, Rose, Crab Apple, Elm	Hawthorn, Blackthorn, Elm, Elder, Oak, Rose, Field Maple	Hawthorn, Blackthorn, Elm, Elder, Oak, Rose, Field Maple	Field Maple, Blackthorn, Hawthorn, Elm, Rose	Hawthorn, Blackthorn, Elder, Rose, Elm	Blackthorn, Hawthorn, Field Maple, Rose, Ash, Oak, White Willow, Grey/Goat Willow, Elm	Elder, Elm, Hawthorn, Blackthorn, Rose	Hawthorn, Blackthorn, Rose, Ash, Oak, Field Maple
Other woody species present	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bank/wall	Х	Χ	Χ	Χ	Χ	X	Х	Х
Intact	\checkmark	✓	✓	✓	Χ	✓	✓	✓



Hedgerow n	umber	H89	H90	H91	H92	H93	H94	H95	H96
Trees		Х	✓	✓	Х	Х	✓	Х	✓
Features	3 flora species	X	Χ	X	Χ	Х	X	Χ	Χ
	Ditch	\checkmark	Χ	\checkmark	\checkmark	Χ	✓	\checkmark	\checkmark
	Connections	1	1	2	3	4	4	4	4
	Parallel hedgerow	Χ	X	X	Χ	Х	Х	X	Χ



Hedgerow nun	mber	H97	H98	H99	H100	H101	H102	H103	H104
Does the hed	gerow classify	No	Yes	No	Yes	Yes	No	No	No
Does the hed parallel to a d bridleway/foo	lesignated	X	✓	✓	×	✓	X	X	X
Black poplar/ tree/small lea lime/large lea	ved	X	X	Х	×	X	X	X	X
No of woody a 30m	species per	5	4	6	6	4	4	5	4
Woody specie recognised by Hedgerows R	y the	Blackthorn, Oak, Field Maple, Ash, Rose	Rose, Dogwood, Hawthorn, Blackthorn	Rose, Elder, Hawthorn, Ash, Field Maple, Oak	Hawthorn, Blackthorn, Elm, Rose, Oak, Field Maple	Rose, Elder, Blackthorn, Field Maple	Blackthorn, Oak, Hawthorn, Rose	Blackthorn, Ash, Elm, Rose, Field Maple	Blackthorn, Hawthorn, Rose, Willow
Other woody present	species	Bramble	Bramble	Bramble	N/A	Bramble	Bramble	N/A	N/A
	Bank/wall	Χ	X	Х	X	Χ	Χ	Χ	Χ
	Intact	✓	✓	✓	✓	✓	✓	✓	✓
	Trees	Χ	X	✓	✓	X	Χ	Χ	Χ
Features	3 flora species	Χ	X	Х	X	X	X	Χ	Χ



Hedgerow number		H97	H98	H99	H100	H101	H102	H103	H104
	Ditch	✓	Х	Х	✓	✓	✓	✓	✓
	Connections	4	4	3	4	3	3	2	3
	Parallel hedgerow	X	X	X	X	X	X	Χ	X



Hedgerow number	H105	H106	H107	H108	H109	H110	H111	H112
Does the hedgerow classify as 'Important'	Yes	No	Yes	No	No	No	Yes	Yes
Does the hedgerow run parallel to a designated bridleway/footpath	X	✓	✓	✓	X	X	X	X
Black poplar/wild service- tree/small leaved lime/large leaved lime	X	Х	X	X	X	X	X	X
No of woody species per 30m	6	5	8	3	5	5	5	5
Woody species present recognised by the Hedgerows Regulations	Hawthorn, Elder, Blackthorn, Field Maple, Dogwood, Rose	Oak, Blackthorn, Field Maple, Rose, Dogwood	Elder, Dogwood, Hawthorn, Rose, Field Maple, Blackthorn, Dogwood, Oak	Blackthorn, Hawthorn, Poplar Tree	Blackthorn, Ash, Rose, Field Maple, Hawthorn	Blackthorn, Hawthorn, Dogwood, Elder, Rose	Blackthorn, Hawthorn, Elder, Ash, Willow, Rose, Elm	Blackthorn, Elm, Rose, Elder, Oak
Other woody species present	N/A	Bramble	N/A	Bramble	Bramble	Bramble	N/A	N/A
Bank/wall	X	Х	X	Х	Χ	Χ	X	
Intact	✓	Χ	✓	✓	✓	\checkmark	✓	



Hedgerow no	umber	H105	H106	H107	H108	H109	H110	H111	H112
	Trees	Х	Х	Х	Х	✓	Х	✓	
Features	3 flora species	X	Х	X	X	Χ	Χ	X	
	Ditch	✓	Χ	X	Χ	Χ	\checkmark	Χ	
	Connections	4	2	5	4	4	6	4	
	Parallel hedgerow	X	X	✓	X	X	Χ	X	



Hedgerow number		H113	H114	H115	H116	H117
Does the hedgerow classify	as 'Important'	Yes	No	No	No	No
Does the hedgerow run par bridleway/footpath	allel to a designated	X	Х	X	X	X
Black poplar/wild service-tr lime/large leaved lime	ee/small leaved	X	Х	X	X	X
No of woody species per 30m		5	5	4	3	2
Woody species present rec Hedgerows Regulations	ognised by the	Elm, Rose, Oak, Blackthorn, Hawthorn	Blackthorn, Dogwood, Field Maple, Hawthorn, Rose	Blackthorn, Elder, Rose, Willow	Blackthorn, Hawthorn, Elm	Hawthorn, Elder
Other woody species prese	nt	Bramble	Bramble	Bramble	Bramble	Bramble
	Bank/wall	X	X	X	X	X
	Intact	✓	✓	✓	X	X
	Trees	✓	X	X	X	X
Features	3 flora species	X	X	X	X	X
	Ditch	✓	✓	✓	X	X
	Connections	4	4	5	3	2
	Parallel hedgerow	X	Χ	Χ	Χ	Χ



Hedgerow number		H121	H122	H125	H126	H127	H128
Does the hedgerow class	ify as 'Important'	No	No	No	Yes	No	No
Does the hedgerow run p bridleway/footpath	Does the hedgerow run parallel to a designated bridleway/footpath		Χ	Χ	Χ	Х	X
Black poplar/wild service-tree/small leaved lime/large leaved lime		X	Χ	Χ	✓	Х	X
No of woody species per 30m		3	3	5	6	3	3
Woody species present recognised by the Hedgerows Regulations		Hawthorn, Blackthorn, Rose	Blackthorn, Field Maple, Elder	Blackthorn, Elm, Hawthorn, Ash, Field Maple	Hawthorn, Blackthorn, Elder, Ash, Lime, Elm, Hazel	Blackthorn, Hawthorn, Elm	Hawthorn, Blackthorn, Rose
Other woody species pres	sent	Bramble	Bramble	Bramble	N/A	N/A	Bramble
	Bank/wall	Χ	Χ	Χ	Χ	Χ	
	Intact	✓	✓	✓	✓	✓	
	Trees	Χ	Χ	Χ	✓	Х	
Features	3 flora species	Χ	Χ	Χ	Χ	Χ	
	Ditch	Χ	✓	✓	X	Χ	
	Connections	3	6	5	3	4	
	Parallel hedgerow	Χ	Χ	Χ	✓	Х	



Hedgerow number		H129	H130	H131	H132	H133	H134	H135	H136
Does the hedgero		No	No	Yes	No	Yes	Yes	No	Yes
Does the hedgeron parallel to a design bridleway/footpath	nated	X	Х	X	Х	X	X	Х	✓
Black poplar/wild stree/small leaved lime/large leaved l		X	✓	X	Х	×	X	X	X
No of woody spec 30m	ies per	3	4	5	2	5	6	2	6
Woody species pr recognised by the Hedgerows Regula		Blackthorn, Elm, Hawthorn	Hawthorn, Rose Ash, Lime	Blackthorn, Hawthorn, Rose, Oak, Ash	Hawthorn, Rose	Hawthorn, Elm, Blackthorn, Field Maple, Ash	Pedunculate Oak, Blackthorn, Elm, Hawthorn, Elder, Ash, Field Maple, Rose	Blackthorn, Hawthorn, Field Maple	Elm, Dogrose, Hawthorn, Blackthorn, Field Maple, Oak, Ash
Other woody spec present	ies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ban	k/wall	Χ	X	X	Х	X	X	Х	X
Inta	ct	✓	✓	✓	X	✓	✓	✓	✓
Tree	es	✓	Χ	✓	Χ	✓	✓	Χ	X



Hedgerow nu	mber	H129	H130	H131	H132	H133	H134	H135	H136
Features	3 flora species	Х	X	Х	Х	X	X	Х	Χ
	Ditch	Χ	✓	✓	Χ	✓	✓	✓	✓
	Connections	5	3	4	4	7	7	5	4
	Parallel hedgerow	✓	X	✓	✓	X	X	Х	X



Hedgerow n	umber	H137	H138	H139	H140	H141	H142	H143	H144
Does the he classify as	_	No	No	No	No	No	No	No	No
	edgerow run a designated ootpath	✓	X	X	X	X	X	X	X
Black popla service-tree lime/large l	e/small leaved	Х	X	X	X	X	X	X	X
No of wood 30m	ly species per	3	4	4	5	5	5	3	5
recognised	cies present by the Regulations	Blackthorn, Hawthorn, Elder	Hawthorn, Blackthorn, Rose, Ash	Blackthorn, Hawthorn, Ash, Elm	Ash, Poplar, Apple Spp., Hawthorn, Blackthorn	Blackthorn, Hawthorn, Ash, Field Maple, Oak	Blackthorn, Hawthorn, Elm, Rose, Ash	Blackthorn, Hawthorn, Elm	Blackthorn, Hawthorn, Ash, Elm, Apple Spp.
Other wood present	dy species	N/A	N/A	Bramble	N/A	Bramble	N/A	Bramble	Bramble
	Bank/wall	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ
	Intact	✓	✓	✓	✓	✓	✓	✓	✓
	Trees	Χ	✓	Χ	Χ	✓	\checkmark	Χ	✓
Features	3 flora species	X	Χ	X	Χ	X	X	Χ	X



Hedgerow number	H137	H138	H139	H140	H141	H142	H143	H144
Ditch	Χ	✓	✓	✓	Χ	✓	Χ	Х
Connections	2	2	3	1	4	3	3	3
Parallel hedgerow	X	X	X	X	X	X	X	X



Hedgerow number		H145	H146	H147	H148	H149
Does the hedgerow classify	as 'Important'	Yes	No	Yes	No	No
Does the hedgerow run para bridleway/footpath	Does the hedgerow run parallel to a designated bridleway/footpath		X	X	Х	X
Black poplar/wild service-tree/small leaved lime/large leaved lime		X	X	X	Х	X
No of woody species per 30	m	9	1	6	4	5
Woody species present reco Hedgerows Regulations	Woody species present recognised by the		Hawthorn	Blackthorn, Ash, Rose, Hawthorn, Elm, Privet	Blackthorn, Field Maple, Ash, Privet, Oak, Dogwood, Rose, Elder	Hawthorn, Ash, Elm, Blackthorn, Dogwood
Other woody species preser	nt	Bramble	Bramble	Bramble, Poplar	Poplar	Bramble
	Bank/wall	X	X	X	X	X
	Intact	✓	✓	✓	✓	✓
	Trees	✓	Χ	✓	✓	X
Features	3 flora species	X	X	X	X	X
	Ditch	X	Χ	X	✓	✓



Hedgerow number	H145	H146	H147	H148	H149
Connections	14	1	1	3	3
Parallel hedgerow	X	✓	✓	✓	✓



Hedgerow number		H162	H163	H164	H165	H166
Does the hedgerow classi	fy as 'Important'	No	No	No	No	No
Does the hedgerow run parallel to a designated bridleway/footpath		X	X	X	X	X
Black poplar/wild service- lime/large leaved lime	tree/small leaved	Χ	Χ	X	Χ	Χ
No of woody species per 30m		4	3	3	4	3
Woody species present recognised by the Hedgerows Regulations		Rose, Hawthorn, Blackthorn, Pedunculate Oak, Dogwood, Elder	Blackthorn, Hawthorn, Rose, Pedunculate Oak	Hawthorn, Blackthorn, Rose	Hawthorn, Blackthorn, Field Maple. Pedunculate Oak	Hawthorn, Blackthorn, Rose, Field Maple
Other woody species pres	sent	N/A	Bramble	Bramble	Bramble	Bramble
	Bank/wall	X	X	X	X	Χ
	Intact	✓	X	✓	X	✓
	Trees	\checkmark	✓	X	X	Χ
Features	3 flora species	X	X	X	X	X
	Ditch	✓	X	\checkmark	X	X
	Connections	4	4	5	4	4
	Parallel hedgerow	✓	Χ	Χ	Χ	Χ



Hedgerow number	H168	H169	H170	H171	H172	H173	H174	H175
Does the hedgerow classify as 'Important'	No	No	No	No	No	No	No	No
Does the hedgerow run parallel to a designated bridleway/footpath	X	X	X	X	Х	X	✓	X
Black poplar/wild service-tree/small leaved lime/large leaved lime	X	X	X	X	X	X	X	Х
No of woody species per 30m	4	3	3	4	4	4	5	4
Woody species present recognised by the Hedgerows Regulations	Blackthorn, Willow, Ash, Apple Spp., Hawthorn	Blackthorn, Hawthorn, Field Maple	Blackthorn, Rose, Field Maple	Hawthorn, Rose, Field Maple, Pedunculate Oak, Blackthorn	Elm, Hawthorn, Rose, Blackthorn	Blackthorn, Rose, Pedunculate Oak, Ash, Hawthorn, Field Maple	Blackthorn, Ash, Rose, Pedunculate Oak, Hawthorn	Rose, Blackthorn, Hawthorn, Pedunculate Oak, Dogwood, Apple, Field Maple, Ash
Other woody species present	N/A	Bramble	Bramble	Bramble	Bramble	Bramble	Bramble	N/A
Bank/wall	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ
Intact	✓	✓	✓	Χ	✓	✓	✓	\checkmark



Hedgerow	number	H168	H169	H170	H171	H172	H173	H174	H175
	Trees	Х	Х	Х	Х	✓	✓	Х	✓
Features	3 flora species	Χ	Χ	Χ	X	Χ	Χ	X	X
	Ditch	\checkmark	Χ	Χ	Χ	✓	✓	Χ	X
	Connections	3	4	4	2	3	3	5	2
	Parallel hedgerow	Χ	Χ	Χ	X	X	X	X	✓



Hedgerow number	H184	H185a	H185b	H186a	H186b	H187	H188	H189	H190
Does the hedgerow classify as 'Important'	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No
Does the hedgerow run parallel to a designated bridleway/footpath	✓	X	X	X	X	X	X	×	Х
Black poplar/wild service-tree/small leaved lime/large leaved lime	X	X	X	X	X	Х	X	X	Х
No of woody species per 30m	4	5	5	5	5	5	4	6	4
Woody species present recognised by the Hedgerows Regulations	Blackthorn, Pedunculat e Oak, Ash, Hawthorn	Blackthorn, Hawthorn, Ash, Rose, Elm, Field Maple, Privet, Elder, Spindle	Blackthorn, Hawthorn, Ash, Rose, Elm, Field Maple, Privet, Elder, Spindle	Elm, Blackthorn, Hawthorn, Field Maple, Rose	Elm, Blackthorn, Hawthorn, Field Maple, Rose	Blackthorn, Hawthorn, Elm, Rose, Elder, Field Maple	Hawthorn, Blackthorn, Field Maple, Rose, Apple Spp., Pedunculate Oak, Ash	Blackthorn, Field Maple, Ash, Rose, Hawthorn, Elm	Blackthorn, Willow, Hawthorn, Oak, Ash, Field Maple, Rose, Dogwood, Elder, Elm
Other woody species present	N/A	Non-native	Non-native	N/A	N/A	N/A	Bramble	Bramble, Black Bryony	Bramble
Bank/wall	X	Χ	X	X	X	Х	Χ	X	Х



Hedgerow	number	H184	H185a	H185b	H186a	H186b	H187	H188	H189	H190
	Intact	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Trees	✓	Χ	Χ	Χ	X	Χ	\checkmark	X	Χ
Features	3 flora species	X	X	X	X	X	Χ	Χ	X	X
	Ditch	✓	✓	✓	✓	✓	\checkmark	\checkmark	✓	✓
	Connections	4	4	4	5	5	4	4	3	3
	Parallel hedgerow	X	✓	✓	✓	✓	X	Χ	X	X



Hedgerow number		H191	H192	H193	H194	H195	H196
Does the hedgerow 'Important'	classify as	No	No	No	No	Yes	No
Does the hedgerow run parallel to a designated bridleway/footpath		X	Х	X	X	Yes	No
Black poplar/wild service- tree/small leaved lime/large leaved lime		X	X	X	X	No	No
No of woody specie	es per 30m	5	6	4	4	4	4
Woody species present recognised by the Hedgerows Regulations		Elm, Hawthorn, Ash, Blackthorn, Crab Apple	Blackthorn, Hawthorn, Apple, Rose, Elm, Field Maple, Pedunculate Oak, Ash	Blackthorn, Field Maple, Hawthorn, Pedunculate Oak, Ash, Elm, Rose	Hawthorn, Blackthorn, Rose, Elder, Dogwood, Field Maple	Blackthorn, Hawthorn, Elder, Field Maple, Rose, Dogwood	Blackthorn, Hawthorn, Dogwood, Field Maple, Rose
Other woody specie	es present	Bramble	Bramble	Bramble	Bramble	Ivy, Bramble	Bramble
	Bank/wall	X	X	X	X	X	X
	Intact	✓	✓	✓	✓	✓	✓
	Trees	\checkmark	X	✓	✓	X	X
Features	3 flora species	Χ	X	X	Χ	×	X
	Ditch	Χ	X	✓	✓	✓	X
	Connections	2	4	4	4	3	2



Hedgerow number	H191	H192	H193	H194	H195	H196
Parallel hedgerow	Х	Х	X	Х	Х	Х



Hedgerow number	H197	H198	H199	H200	H201	H205
Does the hedgerow classify as 'Important'	No	No	No	No	No	Yes
Does the hedgerow run parallel to a designated bridleway/footpath	No	X	X	X	Χ	✓
Black poplar/wild service- tree/small leaved lime/large leaved lime	No	X	X	X	Χ	X
No of woody species per 30m	3	4	3	3	4	5
Woody species present recognised by the Hedgerows Regulations	Ash, Blackthorn, Elder, Rose, Hawthorn	Rose, Hawthorn, Blackthorn, ash, Field Maple	Rose, Hawthorn, Blackthorn, Oak sp.	Oak sp., Ash, Rose, Hawthorn, Blackthorn	Hawthorn, Blackthorn, Ash, Rose	Field Maple, Hazel, Dogrose, Prunes sp., Ash, Oak sp.
Other woody species present	Bramble	N/A	N/A	N/A	N/A	NA
	X	X	X	X	X	X
	✓	✓	✓	✓	✓	✓
	✓	X	X	X	✓	X
Features	X	X	X	X	X	X
	✓	✓	✓	✓	✓	✓
	8	3	4	3	1	5
	Χ	X	X	X	X	X



Hedgerow number		H211	H212	H213	H214
Does the hedgerow classify as	Important'	No	No	No	No
Does the hedgerow run parallel bridleway/footpath	X	Χ	Χ	Χ	
Black poplar/wild service-tree/s lime/large leaved lime	X	X	Χ	X	
No of woody species per 30m	2	2	4	4	
Woody species present recogni Regulations	sed by the Hedgerows	Hawthorn, Blackthorn, Rose	Ash, Hawthorn, Blackthorn, Elder	Field Maple, Hawthorn, Hazel, Blackthorn, Elder, Ash, Rose, Elm	Hawthorn, Blackthorn, Ash, Elder, Rose, Elm
Other woody species present		N/A	Bramble	Bramble	Bramble
	Bank/wall	Χ	X	Χ	X
	Intact	\checkmark	✓	✓	✓
	Trees	X	X	Χ	Χ
Features	3 flora species	X	X	X	X
	Ditch	X	X	✓	✓
	Connections	6	4	4	2
	Parallel hedgerow	X	X	X	Χ



Hedgerow number		H220	H222
Does the hedgerow classify as 'Imp	oortant'	Yes	No
Does the hedgerow run parallel to a bridleway/footpath	a designated	Х	Х
Black poplar/wild service-tree/smal lime/large leaved lime	Х	Х	
No of woody species per 30m	5	3	
Woody species present recognised Regulations			
Other woody species present		Bramble	N/A
	Bank/wall	X	X
	Intact	✓	X
	Trees	✓	X
Features	3 flora species	X	X
	Ditch	✓	X
	Connections	6	2
	X	✓	



Hedgerow number		H224	H226	H227	H228	H229	H230	H231
Does the hedgerow cla	ssify as 'Important'	No	No	No	No	No	No	No
_	Does the hedgerow run parallel to a designated bridleway/footpath		X	Χ	Χ	X	Χ	Χ
Black poplar/wild service-tree/small leaved lime/large leaved lime		Χ	Χ	X	Χ	Χ	Χ	X
No of woody species p	er 30m	4	4	4	4	4	3	3
Woody species present recognised by the Hedgerows Regulations			Blackthorn, Rose, Hawthorn, Elm	Blackthorn, Rose, Hawthorn, Elm	Elm, Hawthorn, Rose, Blackthorn	Elm, Hawthorn, Rose, Blackthorn	Hawthorn, Elm, Field Maple	Hawthorn, Blackthorn, Dogrose
Other woody species p	present	N/A	Bramble, Black Bryony	Bramble, Black Bryony	Bramble	Bramble	Lime	N/A
	Bank/wall	Χ	Χ	Χ	Χ	Χ	Χ	Χ
	Intact	✓	✓	\checkmark	✓	✓	Χ	✓
	Trees	✓	Χ	Χ	✓	✓	Χ	Χ
Features	3 flora species	X	Χ	Χ	Χ	Χ	Χ	Χ
	Ditch	Χ	Χ	✓	Χ	Χ	Χ	✓
	Connections	8	4	4	3	4	2	3
	Parallel hedgerow	Χ	Χ	Χ	Χ	Χ	Χ	Χ



Hedgerow number	ſ	H232	H233	H234	H235	H236	H237	H238	H239
Does the hedgerd 'Important'	ow classify as	No	No	No	No	No	No	No	No
Does the hedger to a designated bridleway/footpa	•	Χ	Х	X	X	X	X	X	X
Black poplar/wild tree/small leaved lime/large leaved		X	X	Χ	X	X	X	X	X
No of woody spe	cies per 30m	4	4	5	3	4	2	3	4
Woody species p recognised by the Regulations		Hawthorn, Elder, Field Maple, Blackthorn	Hawthorn, Elder, Field Maple, Blackthorn	Field Maple, Elm, Hawthorn, Dogrose, Blackthorn	N/A	Hawthorn, Elder, Field Maple, Blackthorn	Elder, Blackthorn	Blackthorn, Elder, Hawthorn	Blackthorn, Hawthorn, Elder, Elm
Other woody spe	cies present	N/A	N/A	N/A	N/A	N/A	Bramble	Bramble	N/A
	Bank/wall	Χ	Χ	Χ	Χ	Χ	Χ	\checkmark	Χ
	Intact	✓	✓	✓	\checkmark	\checkmark	✓	Χ	✓
	Trees	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ
Features	3 flora species	X	X	Χ	Χ	X	Χ	Χ	X
	Ditch	X	X	\checkmark	✓	X	\checkmark	X	✓



Hedgerow number	H232	H233	H234	H235	H236	H237	H238	H239
Connections	3	4	4	2	2	4	3	5
Parallel hedgerow	X	X	Χ	Χ	✓	✓	X	Χ



Hedgerow number	H240	241	242	243	244	245	246	247
Does the hedgerow classify a 'Important'	s No	No	No	No	No	No	No	No
Does the hedgerow run parall to a designated bridleway/footpath	el ✓	X	X	X	Х	X	X	✓
Black poplar/wild service- tree/small leaved lime/large leaved lime	X	X	X	X	X	Х	X	X
No of woody species per 30m	3	3	3	2	3	3	3	3
Woody species present recognised by the Hedgerows Regulations	Rose, Elm, Oak sp.	Hawthorn, Blackthorn, Rose	Hawthorn, Blackthorn, Ash	Elm, Hawthorn	Elder, Hawthorn, Blackthorn	Elder, hawthorn, Blackthorn	Hawthorn, Blackthorn, Rose, Field Maple, Dogwood, Buckthorn	Hawthorn, Blackthorn, Rose
Other woody species present	N/A	N/A	N/A	Bramble	N/A	N/A	Bramble, Poplar, Willow	Bramble
Bank/wall	Х	Χ	Χ	X	Χ	Χ	Χ	
Intact	✓	✓	✓	✓	✓	✓	✓	
Trees	✓	Χ	Χ	X	Χ	✓	✓	



Hedgerow number		H240	241	242	243	244	245	246	247
Features	3 flora species	Х	Х	Χ	Х	Х	Χ	Χ	
	Ditch	\checkmark	✓	\checkmark	\checkmark	Χ	\checkmark	\checkmark	
	Connections	4	4	4	3	1	3	4	
	Parallel hedgerow	Χ	Χ	Χ	Χ	✓	\checkmark	Χ	



Hedgerow numb	er	H300	H301	H302	H303	H304	H305	H306	H307
Does the hedge as 'Important'	row classify	No	No	No	No	No	No	No	No
Does the hedge parallel to a des bridleway/footp	signated	X	X	X	X	X	X	X	X
Black poplar/wi tree/small leave lime/large leave	ed	Х	X	X	X	X	X	X	X
No of woody sp 30m	ecies per	3	3	2	2	3	2	4	3
Woody species recognised by t Hedgerows Reg	he	Hawthorn, Blackthorn, Rose sp.	Dog rose, Hawthorn	Blackthorn, Hawthorn	Hawthorn, Blackthorn	Hawthorn, Blackthorn, Ash	Hawthorn, Ash	Hawthorn, Blackthorn, Ash	Hawthorn, Blackthorn, Ash
Other woody sp	ecies present	Bramble	Bramble	N/A	N/A	N/A	N/A	Bramble	N/A
	Bank/wall	Χ	✓	Χ	Χ	Χ	Χ	Χ	Χ
	Intact	✓	Χ	✓	✓	✓	✓	✓	✓
	Trees	Χ	Χ	\checkmark	Χ	\checkmark	✓	Χ	✓
Features	3 flora species	Χ	X	✓	Χ	X	X	X	Χ
	Ditch	\checkmark	Χ	Χ	Χ	✓	✓	✓	Χ
	Connections	1	1	2	5	4	4	2	5



Hedgerow number	H300	H301	H302	H303	H304	H305	H306	H307
Parallel hedgerow	Х	Χ	✓	Χ	Χ	✓	Χ	X



Hedgerow	number	H308	H309	H310	H311	H400	H401	H402	H403
Does the 'Importan	hedgerow classify as t'	Yes	No	No	No	No	No	No	No
	hedgerow run o a designated //footpath	X	X	Х	X	X	X	X	X
tree/small	olar/wild service- l leaved e leaved lime	X	X	Х	X	X	X	X	X
No of woo	ody species per 30m	6	1	2	4	1	4	3	2
	pecies present ed by the Hedgerows ns	Hawthorn, Blackthorn, Ash, Willow sp., Cherry sp.	Hawthorn	Hawthorn, Ash	Blackthorn, Ash, Hawthorn, Rose sp.	Hawthorn	Blackthorn, Ash, Prunus sp., Hawthorn	Ash, Blackthorn, Hawthorn	Oak, Blackthorn
Other woo	ody species present	Bramble	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bank/wall	Χ	Χ	Χ	✓	Χ	Χ	Χ	Χ
	Intact	✓	✓	✓	✓	✓	✓	✓	\checkmark
	Trees	✓	Χ	Χ	Χ	Χ	Χ	\checkmark	\checkmark
Features	3 flora species	Χ	X	Χ	Χ	Χ	Χ	Χ	X
	Ditch	✓	Χ	✓	Χ	Χ	✓	\checkmark	\checkmark
	Connections	4	1	2	5	1	4	1	1

Rosefield Solar Farm Environmental Statement Volume 4, Appendix 7.7: Preliminary Ecological Appraisal (2025)



Hedgerow number	H308	H309	H310	H311	H400	H401	H402	H403
Parallel hedgerow	Х	Х	Χ	Χ	Χ	Χ	Χ	Х



Hedgerow number		H404	H405	H406	H407	H408	H409	H410	H411
Does the hedgerov	v classify as	No	No	No	No	No	No	No	No
Does the hedgerow run parallel to a designated bridleway/footpath		X	X	Χ	Χ	X	Χ	Χ	Χ
Black poplar/wild service-tree/small leaved lime/large leaved lime		X	X	Χ	X	X	X	X	X
No of woody speci	es per 30m	4	4	N/A	4	1	4	4	3
Woody species pro by the Hedgerows		Unknown	Unknown	N/A	Blackthorn, Hawthorn, Rose sp. Elm	Hawthorn	Elder, Blackthorn, Hawthorn, Ash	Hawthorn, Dogrose, Oak sp., Blackthorn	Elm, Ash, Blackthorn
Other woody spec	ies present	N/A	N/A	Non- native	N/A	Bramble	N/A	N/A	N/A
	Bank/wall	Χ	Χ	X	Χ	Χ	Χ	Χ	Χ
	Intact	Χ	Χ	\checkmark	\checkmark	Χ	✓	\checkmark	✓
	Trees	\checkmark	\checkmark	X	Χ	Χ	Χ	\checkmark	✓
Features	3 flora species	X	Χ	Χ	Χ	Χ	Χ	Χ	Χ
	Ditch	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X
	Connections	1	1	1	4	1	2	3	0
	Parallel hedgerow	X	X	Χ	X	X	X	X	✓



Hedgerow number		H412	H413	H414
Does the hedgerow classify as 'Imp	ortant'	No	No	No
Does the hedgerow run parallel to a	designated bridleway/footpath	X	X	Χ
Black poplar/wild service-tree/smal lime/large leaved lime	l leaved	Χ	Χ	X
No of woody species per 30m		2	4	5
Woody species present recognised	by the Hedgerows Regulations	Willow sp., Elm	Unknown	Unknown
Other woody species present		N/A	N/A	N/A
	Bank/wall	X	X	X
	Intact	\checkmark	X	✓
	Trees	\checkmark	X	X
Features	3 flora species	X	X	X
	Ditch	X	X	Χ
	Connections	1	3	3
	X	X	X	



Hedgerow number		H415	H416	H417	H418	H419	H420	H421	H422	H423
Does the hedgerow classify as 'Important'		No	No	Yes	No	No	Yes	Yes	No	No
Does the hedgerow run parallel to a designated bridleway/footpath		No	No	No	No	No	No	No	No	No
Black poplar/wild service- tree/small leaved lime/large leaved lime		No	No	No	No	No	No	No	No	No
No of woody sp	ecies per 30m	6	6	6	3	4	6	4	1	6
Woody species present recognised by the Hedgerows Regulations		Field Maple, Hawthorn, Ash, Rose sp., Blackthorn, Elm	Hawthorn, Ash, Blackthorn, Elm, Field Maple, Dogwood	Elder, Blackthorn, Ash, Wild Privet, Field Maple, Hawthorn	Hawthorn, Blackthorn, Prunus sp.	Blackthorn, Elm, Field Maple, Hawthorn	Elm, Ash, Hawthorn, Wild Privet, Rose sp., Blackthorn, Prunus sp.	Elm, Blackthorn, Hawthorn, Prunus sp.	Elm	Wild Privet, Ash, Hawthorn, Rose Sp. Blackthorn, Elm
Other woody species present		None	Bramble	Bramble	None	None	None	None	None	None
	Bank/wall	Χ	Χ	X	Χ	Χ	Χ	Χ	Χ	Χ
	Intact	✓	✓	✓	✓	✓	✓	✓	✓	✓
Features	Trees	Χ	Χ	X	Χ	Χ	Χ	✓	Χ	Χ
	3 flora species	Χ	X	X	X	Χ	X	X	Х	Χ
	Ditch	Χ	X	✓	X	Χ	✓	✓	Χ	Χ

Rosefield Solar Farm Environmental Statement Volume 4, Appendix 7.7: Preliminary Ecological Appraisal (2025)



Hedgerow number		H415	H416	H417	H418	H419	H420	H421	H422	H423
	Connections	2	1	1	2	0	1	2	1	0
	Parallel hedgerow	✓	✓	✓	✓	✓	✓	✓	✓	✓



Hedgerow number	H424	H425	H426	H427	H428	H429	H430	H431	H432
Does the hedgerow classify as 'Important'	No	No	No	No	No	Yes	Yes	No	No
Does the hedgerow run parallel to a designated bridleway/footpath	No	Yes	No	No	No	No	No	No	No
Black poplar/wild service-tree/small leaved lime/large leaved lime	No	No	No	No	No	No	No	No	No
No of woody species per 30m	5	5	4	4	5	6	7	5	3
Woody species present recognised by the Hedgerows Regulations	Elm, Elder, Blackthorn, Willow sp. Hawthorn	Elm, Blackthorn, Field Maple, Hawthorn	Elm, Hawthorn, Blackthorn, Rose Sp.	Hawthorn, Oak sp., Field Maple, Ash	Hawthorn, Blackthorn, Ash, Rose sp., Dogwood, Field Maple	Ash, Field Maple, Wild Privet, Rose Sp., Hawthorn, Elm	Blackthorn, Prunus sp., Hornbeam, Rose Sp., Elm, Elder, Field Maple	Blackthorn, Ash, Hawthorn, Elm, Field Maple	Field Maple, Hawthorn, Blackthorn
Other woody species present	Bramble	Bramble	None	None	None	None	None	None	None
Bank/wall	Χ	Χ	Χ	Χ	Χ	X	Χ	Х	Х
Intact	✓	Χ	✓	✓	✓	✓	✓	✓	✓



Hedgerow number		H424	H425	H426	H427	H428	H429	H430	H431	H432
	Trees	Χ	Х	Х	✓	✓	✓	✓	Х	✓
Features	3 flora species	Χ	Χ	Χ	Χ	X	Χ	Χ	Χ	Χ
	Ditch	Χ	Χ	Χ	Χ	Χ	✓	X	Χ	Χ
	Connections	1	2	2	2	4	1	0	2	1
	Parallel hedgerow	✓	Χ	✓	Χ	X	✓	✓	Χ	✓

Annex G: Site Photographs





Annex G – Site photographs



Photo 1: Artificial unvegetated, unsealed surface – Parcel 2



Photo 2: Bramble scrub - Parcel 2



Photo 3: Building - Parcel 2



Photo 4: Cereal Crops – Parcel 2



Photo 5: Cropland - Parcel 2



Photo 6: Lowland mixed deciduous woodland – Parcel 1





Photo 7: Mixed Scrub - Parcel 1



Photo 8: Modified grassland – Horse grazed – Parcel 3



Photo 9: Modified grassland – cattle grazed – Parcel 2



Photo 10: Modified grassland – Parcel 1



Photo 11: Non-cereal crops - Parcel 2



Photo 12: Other neutral grassland – Scattered scrub – Parcel 2





Photo 13: Other neutral grassland – Scattered Rushes – Parcel 1



Photo 14: Other neutral grassland – Tall herb – Parcel 1



Photo 15: Other neutral grassland with young planted trees – Parcel 1



Photo 16: Other neutral grassland – Parcel 3



Photo 17: Other woodland; broadleaved – Parcel 2



Photo 18: Other woodland; broadleaved – Plantation – Parcel 2





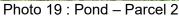




Photo 20: Ponds - Parcel 2



rosefieldsolarfarm.co.uk