OAKLANDS FARM SOLAR PARK

Applicant: Oaklands Farm Solar Ltd

Environmental Statement
Appendix 6.5 – Phase 1 Habitat Survey Report
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Oaklands Farm Solar Park - Environmental Statement Volume 3

Appendix 6.5: Phase 1 Habitat Survey Report

Final report
Prepared by LUC
January 2024

Oaklands Farm Solar Limited

Oaklands Farm Solar Park
Technical Appendix 6.5: Extended Phase 1 Habitat Survey Report

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Land Use Consultants Ltd
Registered in England
Registered number 2549296
Registered office:
250 Waterloo Road
London SE1 8RD

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Contents

Chapter 1
Introduction

Terms of Reference

1.1 In April 2021, LUC was appointed by Oaklands Solar Farm Limited to provide ecological support to inform an application to construct and operate Oaklands Farm Solar Park, a proposed solar photovoltaic (PV) electricity generating facility, hereafter referred to as 'the Project'.

1.2 This report forms an Appendix, which has informed an Ecological Impact Assessment (EcIA) and will form part of the Environmental Statement (ES), in support of a planning application for the Project. Assessment of impacts, mitigation requirements and enhancement measures will be provided as part of the ES Chapter and are not detailed within this report.

1.3 This report has been prepared for the exclusive use of Oaklands Solar Farm Limited. No part of this report should be considered as legal advice.

This report relates to Oaklands Farm and land within the grid cable route, including Park Farm, Fairfield Farm, and Drakelow Power Station, hereafter referred to as 'the Site'.

1.4 This report presents the baseline findings of a Desk Study and an Extended Phase 1 Habitat Survey for the Site and identifies requirements for further protected species surveys. This report has been prepared to inform proposals, including avoidance of impacts, mitigation requirements, and provision of appropriate enhancements.

Site Description

1.5 The Site boundary is located to the east of Walton-on-Trent in South Derbyshire (OS Central Grid Reference: SK 23456 17577). The Site boundary comprised of land within Oaklands Farm, Park Farm and Fairfield Farm land-holdings, which are currently used for arable cropping and grazing, and Drakelow National Grid Substation in the north.

1.6 The wider area comprised a mosaic of agricultural and pastoral land and woodland with Rosliston Forestry Centre located to the east and the River Trent and to the west of the Site boundary.

1.7 The majority of the Site, which is located with the Oaklands Farm, Park Farm and Fairfield Farm landholdings, is comprised of species-poor and agriculturally improved pasture to maximise the productivity of cattle and sheep grazing. Grazing pressures, including trampling, erosion and physical damage by livestock has severely degraded many of the internal site hedgerows, which are typically defunct and characterised by a species-poor assemblage and open, straggly growth form. A small section of the Site in the north is located within Drakelow Power Station. This area of land is comprised of woodland, grassland, scrub mosaic and a pond. Areas of increased ecological value within the Site relate primarily to woodlands and an unnamed watercourse.

Proposed Development Description

1.8 The Oaklands Farm Solar Park Project comprises a proposed solar farm with an associated Battery Energy Storage System ('the Proposed Development'). The Proposed Development would have a generating capacity of over 50MW and would be situated on 191 hectares of land at Oaklands Farm to the south-east of Walton-on-Trent and to the west of Rosliston in south Derbyshire. The solar farm itself, comprising photovoltaic panel arrays, a central electricity substation and Battery Energy Storage System together with access, landscaping and other works would be located on 135 hectares of agricultural land currently in use for arable production and grazing. A high voltage underground electricity cable would then run through land at Fairfield Farm and Park Farm to the north to connect the solar farm to the national grid via an electricity substation located at the former Drakelow Power Station which sits south of Burton-upon-Trent. As the Proposed Development would be an onshore generating station with a generating capacity of over 50MW an application for a Development Consent Order is being made under the Planning Act 2008 to the Planning Inspectorate, for determination by the Secretary of State for Energy Security and Net Zero.

Previous Surveys at Oaklands Farm

1.9 A Desk Study and Extended Phase 1 Habitat Survey for Oaklands Farm was undertaken in 2020 and reported separately[1] to inform this planning application. In line with advice given by CIEEM on the lifespan of ecological reports and surveys, a site conditions update survey was undertaken on 30th March 2023, which confirmed that the survey findings are still considered valid in cognisance with advice provided by CIEEM. Details of this site walkover are summarised in this report. The full methodology and results of the original assessment are available within the previous report[1].

Policy and Legal Considerations

1.10 This baseline report has been prepared in cognisance with relevant legislation and policy. Further detail is provided in **Appendix A**; however, the following primary documents are of relevance:

- The Wildlife and Countryside Act of 1981[2].
- The Countryside and Rights of Way Act (CRoW Act), 2000[3].
- The Natural Environment and Rural Communities Act 2006 (NERC Act)[4].
- The Conservation of Habitats and Species Regulations 2017[5].
- The Protections of Badgers Act 1992[6].
- Hedgerow Regulations 1997[7].

[1] Arcus, (2020). *Preliminary Ecological Appraisal: Oaklands Solar Farm and Grid Connection Route prepared on behalf of BayWa r.e. UK Limited*
[2] The Wildlife and Countryside Act 1981. Available at: https://www.legislation.gov.uk/ukpga/1981/69. [Accessed 29/09/23]
[3] The Countryside and Rights of Way Act (CRoW Act), 2000. Available at: https://www.legislation.gov.uk/ukpga/2000/37/contents [Accessed 29/09/23]
[4] The Natural Environment and Rural Communities Act 2006. Available at: https://www.legislation.gov.uk/ukpga/2006/16/contents [Accessed 29/09/23]
[5] The Conservation of Habitats and Species Regulations 2017. Available at: https://www.legislation.gov.uk/uksi/2017/1012/contents/made [Accessed 29/09/23]
[6] The Protections of Badgers Act 1992. Available at: https://www.legislation.gov.uk/ukpga/1992/51/contents [Accessed 29/09/23]
[7] Hedgerow Regulations 1997. Available at: https://www.legislation.gov.uk/uksi/1997/1160/contents/made [Accessed 29/09/23].

- The National Planning Policy Framework (2023)[8].
- South Derbyshire District Local Plan Part 1 (Adopted June 2016)[9].
- Department for Energy and Climate Change. 2011. Overarching National Policy Statement for Energy (EN-1)[10] and Draft NPS EN-1 for designation dated 2023[11].
- Department for Energy and Climate Change. 2011. National Policy Statement for Renewable Energy Infrastructure (EN-3)[12] and Draft NPS EN-3 for designation dated 2023[13].
- Department for Energy and Climate Change. 2011. National Policy Statement for Electricity Networks Infrastructure (EN-5)[14] and Draft NPS EN-5 for designation dated 2023[15].

[8] Department for Levelling Up, Housing and Communities 2023) The National Planning Policy Framework. Available at: https://www.gov.uk/government/publications/national-planning-policy-framework—2 [Accessed 29/09/23]
[9] South Derbyshire District Council (2016) Local Plan Part 1 (Adopted June 2016). Available at: https://www.southderbyshire.gov.uk/our-services/planning-and-building-control/planning/planning-policy/local-plan/adopted-local-plan [Accessed 29/09/23]
[10] Department for Energy and Climate Change (2011) Overarching National Policy Statement for Energy. Available at: https://assets.publishing.service.gov.uk/media/5a79522de5274a2acd18bd53/1938-overarching-nps-for-energy-en1.pdf [Accessed 29/09/23]
[11] Department for Energy Security and Net Zero (2011) Draft Overarching National Policy Statement for Energy (EN-1). Available at: https://assets.publishing.service.gov.uk/media/655dc190d03a8d001207fe33/overarching-nps-for-energy-en1.pdf [Accessed 16/01/24]
[12] Department for Energy and Climate Change (2011) National Policy Statement for Renewable Energy Infrastructure (EN-3). Available at: https://assets.publishing.service.gov.uk/media/5a79c422e5274a684690bf53/1940-nps-renewable-energy-en3.pdf [Accessed 29/09/23]
[13] Department for Energy Security and Net Zero (2023) Draft National Policy Statement for Renewable Energy Infrastructure (EN-3). Available at: https://assets.publishing.service.gov.uk/media/655dc352d03a8d001207fe37/nps-renewable-energy-infrastructure-en3.pdf [Accessed 16/01/24]
[14] Department for Energy and Climate Change (2011) National Policy Statement for Electricity Networks Infrastructure (EN-5). Available at: https://assets.publishing.service.gov.uk/media/5a74877840f0b61938c7e2d9/1942-national-policy-statement-electricity-networks.pdf [Accessed 29/09/23]
[15] Department for Energy Security and Net Zero (2011) Draft National Policy Statement for Electricity Networks Infrastructure (EN-5). Available at: https://assets.publishing.service.gov.uk/media/655dc25e046ed400148b9dca/nps-electricity-networks-infrastructure-en5.pdf [Accessed 16/01/24]

Chapter 2
Methods

2.1 The methods adopted in the baseline survey are outlined below. They are in accordance with best practice guidance documents produced by the Chartered Institute of Ecology and Environmental Management (CIEEM)[16].

Desk Study

2.2 To provide additional background and to highlight likely features or species groups of interest, a study of available biological records was undertaken to identify sites designated for their nature conservation value, and existing records of protected or notable species of relevance to the Site. A search of the following resources was undertaken, within a 2km radius from the Site boundary:

- Derbyshire Biological Records Centre (DBRC);
- Multi-Agency Geographical Information for the Countryside (MAGIC)[17];
- Ordnance Survey (OS) mapping; and
- Aerial photography.

2.3 The search area was extended to 5km for Site of Special Scientific Interest (SSSI), 15km for European designated sites and 20km for European designated sites designated for supporting bat species.

2.4 The absence of a species from biological records cannot be taken to represent actual absence. Species distribution patterns should be interpreted with caution as they may reflect survey/reporting effort rather than actual distribution.

[16] CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal and Marine.* Winchester: Chartered Institute for Ecology and Environmental Management.
[17] Natural England (2021) MAGIC Map. Available at: https://magic.defra.gov.uk. (Accessed: April 2022).

Previous Preliminary Ecological Appraisal Report for Oaklands Farm

2.5 A review of the Preliminary Ecological Appraisal Report for Oaklands Farm[1] was also undertaken. This is reported separately in **Appendix 6.3** in Volume 3 of the ES.

Extended Phase 1 Habitat Survey

2.6 An Extended Phase 1 Habitat Survey was undertaken of land within the Site following standard methods[18]. Phase 1 Habitat Survey provides a rapid means of classifying broad habitat types in any given terrestrial site.

2.7 The survey was 'extended' by considering the suitability of the Site to support protected or notable species, as well as the presence of any invasive non-native species. Species considered included those identified during the desk study, or those considered appropriate by the surveyor during the survey. Detailed surveys were not completed as part of the Extended Phase 1 Habitat Survey; however, based on an understanding of species ecology, consideration was given to the Site's potential to provide sheltering or foraging habitat. Suitability for each species was considered according to current good practice guidance[16].

2.8 The surveys were completed on the following dates:

- An Extended Phase 1 Habitat survey of Park Farm was undertaken on 21st April 2021 by Rebecca Turner BSc (Hons) MSc ACIEEM and Tom Hicks BSc (Hons), ACIEEM. This included an area of this land holding which is no longer within the site boundary.
- An Extended Phase 1 Habitat survey of the land between Park Farm and Oaklands Farm was undertaken on 26th April 2022 by Tom Hicks and Rosalind Warwick-Haller BSc (Hons) MSc, a Qualifying Member of CIEEM.
- An Extended Phase 1 Habitat survey was undertaken of land at Drakelow Power station on 11th July 2022 by Tom Hicks.

2.9 Prior to submission of the ES, a site walkover was undertaken on 30th March 2023 for Oaklands Farm, Fairfield Farm and Park Farm, and 6th September 2023 for Drakelow Power Station, to confirm site conditions and it was confirmed that the survey findings are still

[18] Joint Nature Conservation Committee (1990). *Handbook for Phase 1 Habitat Survey.* Peterborough: JNCC.

considered valid in cognisance with advice provided by CIEEM. Details of this site walkover are summarised in this report. The full methodology and results of the original assessment are available within the previous report[1].

Limitations

Drakelow Power Station.

2.10 No access was permitted in the north of Drakelow Power station within the operational substation compound. This area was appraised from land within the non-operational area of the power station and from aerial imagery. This was not considered a constraint to the survey findings given the nature of the habitats present, which predominantly comprised of hard standing and associated infrastructure.

General Limitations

2.11 It is important to note that ecological surveys provide information regarding the ecological baseline of a Site for only a 'snapshot' of time. Therefore, if significant time lapses between the surveys and the further development or implementation of proposals updated ecological surveys may be required to identify any change in the baseline, such as natural succession of habitats, or local extinction or colonisation of species. Therefore, if a year lapses between the progressions of development proposals, it is recommended that ecological advice is sought regarding the applicability of the survey findings, in cognisance with advice given by CIEEM on the lifespan of ecological reports and surveys[19].

2.12 Habitats survey was completed in late April 2021 and April 2022. This accords with optimal timing for assessing and classifying habitats. Nevertheless, in grazed landscapes, the species-richness of grasslands in particular can be less apparent during spring. This was factored into the assessment process and areas of grassland continued to be reviewed in parallel with protected species surveys completed throughout the summer period to ensure that habitats were accurately classified and assessed.

[19] CIEEM (2019). *Advice Note: On the Lifespan of Ecological Reports and Surveys.* Winchester: Chartered Institute for Ecology and Environmental Management.

Chapter 3
Results

Desk Study

3.1 The findings of the desk study are presented in the tables below. **Table 3.1** summarises statutory and non-statutory designated sites within the search area. **Table 3.2** summarises records of protected and notable species of relevance to the Site within 2km.

3.2 The locations of the designated sites are shown in **Figures 6.1 and 6.2** in **Appendix B.**

Table 3.1: Statutory Designated Sites and Non-Statutory Designated Sites within Desk Study Search Area

Site Name	Designation	Qualifying Interest	Approximate Distance and Orientation
Statutory Designated Sites			
The River Mease	Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI)	The River Mease is a small tributary of the River Trent, containing white-clawed crayfish *Austropotamobius pallipes,* spined loach *Cobitis gobio*, bulllhead *Cottus gobio* and otter *Lutra lutra.*	3.4km southwest
Cannock Chase	SAC	Lowland heath habitat of importance to butterflies, beetles, European nightjar *Caprimulgus europaeus* and five species of bats.	20.0km west[20]
Non-statutory Designated Sites			

[20] A Study Area of 20km was applied for European sites that support bats as a qualifying feature. This aligns with recommendations made by The Planning Inspectorate.

Site Name	Designation	Qualifying Interest	Approximate Distance and Orientation
Grove Wood	Local Wildlife Site (LWS)	Ancient semi-natural oak woodland.	On Site
Hill Covert	Potential Local Wildlife Site (pLWS)	No citation available.	0.1km east
The Dumps	LWS	Secondary broad-leaved woodland.	0.5km west
Walton Hall	LWS	Wood pasture and parkland.	0.6km west
Walton Wood	LWS	Ancient woodland plantation - mixed	0.6km west
Barn Farm Pond	pLWS	No citation available.	0.7km northeast
Drakelow Wildfowl Reserve	LWS	Bird assemblage.	0.7km northwest
Rosliston Forestry Centre – Hedgerow	LWS	Hedgerow.	0.7km east
Church Farm Pond	LWS	Derbyshire Red Data Book (DRDB) plant species.	0.8km southeast
Church Farm Pond	pLWS	No citation available.	0.8km southeast
Rosliston Forestry Centre –	LWS	Standing open water.	0.8km east

Site Name	Designation	Qualifying Interest	Approximate Distance and Orientation
Meadow Pond			
Church Street Grassland	LWS	Unimproved neutral grassland.	0.9km southeast
Drakelow	Derbyshire Wildlife Trust Nature Reserve	Birds, wintering bitterns, ducks and waders.	0.9km northwest
Mansditch Farm Pond	pLWS	No citation available.	1.0km south
Hill Close Wood Pond	LWS	Standing open water.	1.1km south
Borough Hill Wetland	LWS	Lowland swamp.	1.4km west
New Ozier Bed Pond	LWS	Standing open water.	1.4km east
Homestall Pond	pLWS	No citation available.	1.5km south
Homestall Wood	LWS	Secondary broad-leaved woodland.	1.5km south
Brick Kiln Pits	LWS	Secondary broad-leaved woodland.	1.9km southwest

Table 3.2: Protected and Notable Species Within 2km

Species Name	Status*	Approximate Distance and Orientation of Nearest Record
Amphibians		
Great crested newt (*Triturus cristatus*)	The Conservation (Natural Habitats &c.) Regulations 2017, as amended, Schedule 2 (EPS – Habitats Regs) Wildlife and Countryside Act 1981 (W&CA) schedule 5 The Natural Environment and Rural Communities Act 2006, Section 41, Species of Principal Importance (NERC Act 2006)	0.8km southeast
Common toad (*Bufo bufo*)	UK BAP	0.8km northwest
Smooth newt	W&CA schedule 5	0.8km northwest
Common frog	W&CA schedule 5	1.0km east
Reptiles		
Grass snake (*Natrix helvetica)*	W&CA schedule 5 NERC Act 2006 UK Priority Species	0.9km east
Common lizard (*Zootoca vivipara*)	W&CA schedule 5 NERC Act 2006 UK Priority Species	0.9km east

Species Name	Status*	Approximate Distance and Orientation of Nearest Record
Adder (*Vipera berus*)	W&CA schedule 5 NERC Act 2006 UK Priority Species	0.9km east
Mammals (including bats)		
Badger (*Meles meles*)	Bern Convention: Appendix 3, Protection of Badgers Act: Protection of Badgers Act (1992)	Confidential
Noctule (*Nyctalus noctule*)	W&CA schedule 5 EPS – Habitats Regs Habitats Directive Annex 4 NERC Act 2006	On Site
Brown long-eared (*Plecotus auratus*)	W&CA schedule 5 EPS – Habitats Regs Habitats Directive Annex 4 NERC Act 2006 UK Priority Species	On Site
Soprano pipistrelle (*Pipistrellus pygmaeus*)	W&CA schedule 5 EPS – Habitats Regs Habitats Directive Annex 4 NERC Act 2006	On site

Species Name	Status*	Approximate Distance and Orientation of Nearest Record
Pipistrelle species (*Pipistrellus sp.*)	W&CA schedule 5 EPS – Habitats Regs Habitats Directive Annex 4 NERC Act 2006	On Site
Myotis species (*Myotis sp*)	W&CA schedule 5 EPS – Habitats Regs Habitats Directive Annex 4 NERC Act 2006	On Site
Nathusius' pipistrelle (*Pipistrellus nathusii*)	W&CA schedule 5 EPS – Habitats Regs Habitats Directive Annex 4 NERC Act 2006	On Site
Serotine (*Eptesicus serotinus*)	W&CA schedule 5 EPS – Habitats Regs Habitats Directive Annex 4 NERC Act 2006	On Site
Leisler's bat (*Nyctalus leisleri*)	W&CA schedule 5 EPS – Habitats Regs Habitats Directive Annex 4 NERC Act 2006	On Site

Species Name	Status*	Approximate Distance and Orientation of Nearest Record
Hedgehog (*Erinaceus europaeus*)	W&CA schedule 5 NERC Act 2006 UK Priority Species	0.1km east
Common pipistrelle (*Pipistrellus pipistrellus*)	W&CA schedule 5 EPS – Habitats Regs	0.4km east
Water vole (*Arvicola Amphibius*)	W&CA schedule 5 IUCN Red List for England – Near Endangered NERC Act 2006 UK Priority Species	0.9km northwest
Brown hare (*Lepus europaeus*)	NERC Act 2006 UK Priority Species	0.4km northwest
Otter (*Lutra lutra*)	W&CA schedule 5 EPS – Habitats Regs NERC Act 2006 UK Priority Species	0.05km northwest
Daubenton's bat (*Myotis daubentoniid*)	W&CA schedule 5 EPS – Habitats Regs Habitats Directive Annex 4 NERC Act 2006	1.2km northwest

Species Name	Status*	Approximate Distance and Orientation of Nearest Record
Brandt's bat (*Myotis brandtii*)	W&CA schedule 5 EPS – Habitats Regs Habitats Directive Annex 4 NERC Act 2006	1.2km northwest
Whiskered bat (*Myotis mystacinus*)	W&CA schedule 5 EPS – Habitats Regs Habitats Directive Annex 4 NERC Act 2006	1.2km northwest
Birds		
Barn owl (*Tyto alba*)	W&CA Schedule 1 BirdGreen	Confidential
Cetti's warbler (*Cettia cetti*)	W&CA Schedule 1 BirdGreen	Confidential
Peregrine (*Falco peregrinus*)	W&CA Schedule 1 BirdGreen	Confidential
Redwing (*Turdus iliacus*)	W&CA Schedule 1 BirdAmber	Confidential
Fieldfare (*Turdus pilaris*)	W&CA Schedule 1 BirdRed	Confidential

Species Name	Status*	Approximate Distance and Orientation of Nearest Record
Kingfisher (*Alcedo atthis*)	W&CA Schedule 1 BirdGreen	Confidential
Merlin (*Falco columbarius*)	W&CA Schedule 1 BirdRed	Confidential
Whooper swan (*Cygnus cygnus*)	W&CA Schedule 1 BirdAmber	Confidential
Hobby (*Falco subbuteo*)	W&CA Schedule 1 BirdGreen	Confidential
Red kite (*Milvus milvus*)	W&CA Schedule 1 BirdGreen	Confidential
Honey buzzard (*Pernis apivorus*)	W&CA Schedule 1 BirdAmber	Confidential
Bullfinch (*Pyrrhula pyrrhula*)	Sect 41; BirdAmb	On Site
Song thrush (*Turdus philomelos*)	Sect 41; BirdRed	0.04km east
House sparrow (*Passer domesticus*)	Sect 41; Bird-Red BirdRed	0.4km east
Yellowhammer (*Emberiza citronella*)	Sect.41;	0.8km east

Species Name	Status*	Approximate Distance and Orientation of Nearest Record
	BirdRed	
Dunnock (*Prunella modularis*)	BirdAmb; Bern2	1.0km northwest
Lapwing (*Vanellus vanellus*)	Sect.41; BirdRed	1.0km northwest
Cuckoo (*Cuculus canorus*)	Sect 41; BirdRed	1.0km northwest
Grasshopper warbler (*Locustella naevia*)	Sect.41; BirdRed	1.0km northwest
Wood warbler (*Phylloscopus sibilatrix*)	Sect 41; BirdRed	1.0km northwest
Willow tit (*Poecile montanus*)	Sect 41; BirdRed	1.0km northwest
Skylark (*Alauda arvensis*)	Sect.41; BirdRed	1.0km northwest
Reed Bunting (*Emberiza schoeniclus*)	Sect 41; BirdAmb	1.0km northwest
Curlew (*Numenius arquata*)	Sect 41; BirdRed	1.0km northwest

Species Name	Status*	Approximate Distance and Orientation of Nearest Record
Starling (*Sturnus vulgaris*)	Sect 41; BirdRed	1.0km northwest
Linnet (*Carduelis cannabina*)	Sect 41; BirdRed	1.0km northwest
Lesser spotted woodpecker (*Dendrocopos minor*)	Sect 41; BirdRed	1.0km northwest
Spotted flycatcher (*Muscicapa striata*)	Sect 41; BirdRed	1.0km northwest
Grey partridge (*Perdix perdix*)	Sect 41; BirdRed	1.0km northwest
Corn bunting (*Miliaria calandra*)	Sect 41; BirdRed	1.0km northwest
Marsh tit (*Parus palustris*)	Sect 41; BirdRed	1.0km northwest
Swallow (*Hirundo rustica*)	BirdGreen	1.0km northwest
Swift (*Apus apus*)	BirdRed	1.0km northwest
Higher Plants		

Species Name	Status*	Approximate Distance and Orientation of Nearest Record
Sand spurrey (*Spergularia rubra*)	Cat. 5 Locally Scarce or Declining	0.1km north
Purple willow (*Salix purpurea*)	Cat. 5 Locally Scarce or Declining	0.3km southwest
Bogbean (*Menyanthes trifoliata*)	Cat. 5 Locally Scarce or Declining	0.7km southeast
Small cudweed (*Filago minima*)	Cat. 5 Locally Scarce or Declining	1.0km northwest
Horned pondweed (*Zannichellia palustris*)	Cat. 5 Locally Scarce or Declining	1.0km east
Common cudweed (*Filago vulgaris*)	Cat. 2 Nationally Threatened	1.0km northwest
Marsh speedwell (*Veronica scutellate*)	Cat. 5 Locally Scarce or Declining	1.0km northwest
Invertebrates		
Blood-vein (*Timandra comae*)	UK BAP	0.7km southwest
Small heath (*Coenonympha pamphilus*)	UK BAP	0.7km northwest
Dingy skipper (*Erynnis tages*)	UK BAP	0.7km northwest

Species Name	Status*	Approximate Distance and Orientation of Nearest Record
Small square-spot (*Diarsia rubi*)	UK BAP	1.0km northwest
Dusky thorn (*Ennomos fuscantaria*)	UK BAP	1.0km northwest
Sallow (X*anthia icteritia*)	UK BAP	1.0km northwest
Centre-barred Sallow (*Atethmia centrago*)	UK BAP	1.0km northwest
Crescent (*Celaena leucostigma*)	UK BAP	1.0km northwest
Autumnal rustic (*Eugnorisma glareosa*)	UK BAP	1.0km northwest
Mouse moth (*Amphipyra tragopoginis*)	UK BAP	1.0km northwest
Feathered gothic (*Tholera decimalis*)	UK BAP	1.0km northwest
Cinnabar (*Tyria jacobaeae*)	UK BAP	1.0km northwest

*As provided in data search by Derbyshire Wildlife Trust

Ancient Woodland, Trees and Veteran Trees

3.3 The Site supports a number of ancient and veteran trees as identified within **Appendix 6.14 Arboricultural Survey Report**. In addition to this, ancient woodland was identified at Grove Wood Local Wildlife Site located 30m to the east of the Site along the Grid cable route corridor.

Previous PEA for Oaklands Farm

3.4 The previous desk study[1] for the Site in 2020 identified two statutory designated sites within 5km of Oaklands Farm (River Mease SAC and SSSI) and thirteen non-statutory designated sites (LWS) within 2km of Oaklands Farm.

3.5 The full Preliminary Ecological Appraisal (PEA) is presented in **Appendix 6.3: Preliminary Ecological Appraisal: Oaklands Solar Farm and Grid Connection Route.** A site walkover was completed in March 2023, which confirmed that the land use and habitat descriptions are set out in the report remain consistent with the findings of the previous survey in 2020. Due to the nature of the Site, as a working farm it was noted that some fields were subject to crop rotation with some fields previously recorded as arable now recorded as improved grassland. This change was not considered to affect the overall findings of the survey undertaken in 2020. Reference should be made to the Phase 1 Habitat Map (**Figures 6.5.1a and 6.5.1b**) in **Appendix C**, which was updated following the site walkover in March 2023. A summary of the habitats descriptions identified in the previous Extended Phase 1 Habitat Survey[1] and which remain valid have been summarised below. For full details reference should be made to the original PEA[1] as referenced above.

Arable (J1.1)

3.6 The majority of the fields consisted of arable crops.

Improved grassland (B4)

3.7 Several fields consisted of improved grassland with a long sward, dominated by perennial rye-grass (*Lolium perenne*) with occasional yorkshire fog (*Holcus lanatus*), white clover (*Trifolium repens*) and dandelion (*Taraxacum officinale* agg.). Due to the nature of the Site, the updated site walkover noted that as a working farm that some fields were subject to crop rotation with some fields previously recorded as arable now recorded as improved grassland.

No cattle were recorded on site at the time of survey in 2023, however they had previously been recorded on Site as part of surveys in 2021 and 2022.

Semi-improved neutral grassland / tall ruderal habitat mosaic (B2.2 / C3.1)

3.8 Semi-improved neutral grassland was recorded in fields in the north of the Site with species including perennial rye-grass (*Lolium perenne*), pineapple weed (*Matricaria discoidea*), red campion (*Silene dioica*), herb-robert (*Geranium robertianum*), false oat-grass (*Arrhenatherum elatius*), forget-me-not (*Myosotis* sp.), daisy (*Bellis perennis*), creeping buttercup (*Ranunculus repens*), cow parsley (*Anthriscus sylvestris*) and red fescue (*Festuca rubra*). The majority of field margins also comprised semi-improved neutral grassland, with some having a tall ruderal/grassland mosaic.

3.9 Further tall ruderal species were noted in the woodland understorey to the north of the Site and within a field to the east. Species included common nettle (*Urtica dioica*), Yorkshire fog (*Holcus lanatus)*, ribwort plantain (*Plantago lanceolata*) and creeping buttercup (*Ranunculus repens*).

Bare ground (J4)

3.10 Some fields were recorded to support bare ground. The updated site walkover confirmed that these fields were now used for arable purposes.

3.11 In addition, access tracks supporting bare ground were noted.

Species-rich hedgerow with trees (J2.1.1 / J2.2.1 / J2.3.1)

3.12 Species-rich hedgerows with trees were well managed with species including blackthorn (*Prunus spinosa*) and hawthorn (*Crataegus monogyna*). Species present in the understorey, consisted of common ivy (*Hedera helix*), dock (*Rumex* sp), cow's parsley (*Anthriscus sylvestris*), hedge mustard (*Sisymbrium officinale*), petty surge (*Euphorbia peplus*), red dead nettle (*Lamium purpureum),* spear thistle (*Cirsium vulgare*) and Shepherd's purse (*Capsella bursa-pastoris*).

Species-poor hedgerow (J2.1.2 / J2.2.2 / J2.3.2)

3.13 Species-poor hedgerows had predominantly been planted or regularly managed in recent decades and were dominated by hawthorn (*Crataegus monogyna*) or blackthorn (*Prunus spinosa*).

Standing water (G1)

3.14 Three ponds with standing water were present and six dry ponds with tall ruderal and scrub were recorded.

Running water (G2)

3.15 A wet ditch was recorded to the north of the Site within the understorey of the broadleaved woodland block. The site walkover in 2023 noted that this formed part of the unnamed watercourse, which ran northwards along the boundary of Park Farm and Land between Oaklands Farm and Park Farm, which diverged at Oaklands Farm to run through the woodland block and along the western boundary of the Site.

3.16 In addition, a small number of ditches were noted to support water at Oaklands Farm.

Dry ditch (J2.6)

3.17 Dry ditches were present throughout the Site, some of which appeared to have been dry for a long period with tall ruderal and scrub vegetation present.

Broadleaved scattered trees (A3.1)

3.18 Broadleaved scattered trees were noted in the centre of fields with species including dominant oak (*Quercus* sp.) and ash (*Fraxinus excelsior*) with occasional sycamore (*Acer pseudoplatanus*) and beech (*Fagus sylvatica*).

Broadleaved woodland (A1.1.1)

3.19 Two pockets of broadleaved woodland were noted to the northeast and southeast boundary of the Site The woodland to the north supported the unnamed watercourse, which ran through the centre of it.

Dense scrub (A2.1)

3.20 Areas of dense scrub were present to the north of the Site in the woodland and scattered throughout the rest of the Site with species including bramble (*Rubus fruticosus* agg.) and hawthorn (*Crataegus monogyna)*.

Scattered scrub (A2.2)

3.21 Scattered scrub was noted in the southeast of the Site with species including hawthorn (*Crataegus monogyna)*, blackthorn (*Prunus spinosa*) and dog rose (*Rosa canina*).

Extended Phase 1 Habitat Survey

3.22 The majority of the Site comprised intensive agricultural land dominated by improved grassland with a network of supporting hedgerows and treelines. Other habitats across the Site were limited in extent but included woodland, dense scrub, bare ground, tall ruderal, neutral grassland, standing water, dry ditches and scattered trees. Habitat descriptions are set out below. While considering this information, reference should be made to the Phase 1 Habitat Map presented in **Figures 6.5.1a and 6.5.1b, Appendix C** and target notes (TN) in **Table C.1: Appendix C**.

Habitats (onsite) – Park Farm and Fairfield Farm

Improved Grassland (B4)

3.23 The majority of Park Farm comprised improved grassland (TN 1 and TN 2). All improved grassland was intensively grazed by cattle and sheep resulting in a short uniform sward. Species comprised abundant Perennial Ryegrass (*Lolium perenne*) and annual meadow-grass (*Poa annua*), frequent Soft Brome (*Bromus hordeaceus*), occasional Creeping Buttercup (*Ranunculus repens*) with rarely Dandelion (*Taraxacum officinale* agg.), meadow foxtail (*Alopecurus pratensis*), white clover (*Trifolium repens*), lesser stitchwort (*Stellaria graminea*), red clover (*Trifolium pratense*), lesser trefoil (*Trifolium dubium*) and cuckoo flower (*Cardamine pratensis*). crested dog's tail (*Cynosurus cristatus*) was locally dominant.

Poor Semi-improved Grassland (B6)

3.24 A small area of poor semi-improved grassland was recorded to the east of the river corridor in the north of the Site (TN5). This comprised of abundant dandelion (*Taraxacum*

officinale agg.) and cock's-foot (*Dactylis glomerata*), frequent broadleaved-dock (*Rumex obtusifolius*) and rush *Juncus* sp., occasional spear thistle (*Cirsium vulgare*) and locally rare bramble (*Rubus fruticosus* agg.) and creeping buttercup (*Ranunculus repens*).

Standing Water (G1)

3.25 A single wet ditch was recorded along the western boundary of the Site, adjacent to an intact hedgerow and one wet ditch intersecting two fields to the north of Rosliston Road.

Running Water (G2)

3.26 A single unnamed waterbody, a contributor of the River Trent, was recorded running from south to north along the Grid cable route. The unnamed waterbody flows through the semi-improved grassland and woodland to the north of Oaklands Farm and runs along the eastern and western boundary of the Site at different sections at Oaklands Farm and Fairfield Farm respectively until it reaches an area of semi-improved grassland where it continues outside of the Site (Fields O24 and TN 4 respectively).

Treelines (TL)

3.27 Treelines supporting mature trees were recorded in the north of Park Farm along the access track (TN6). Species included dominant lime (*Tilia* sp.).

Species-poor Hedgerows (intact)

3.28 Four species-poor hedgerows were recorded within the Park Farm and Fairfield Farm landholding. Species included dominant to abundant blackthorn (*Prunus spinosa*), abundant hawthorn (*Crataegus monogyna*), occasional oak (*Quercus* sp.) and locally rare ash (*Fraxinus excelsior*) (TN 3). Frequent blackthorn (*Prunus spinosa*) was recorded for one of the hedgerows. Ground flora species included dominant to abundant common nettle *(Urtica dioica*), dominant cleavers (*Galium aparine*), abundant hedge garlic (*Alliaria petiolata*), occasional ivy (*Hedera helix*) and locally rare dock (*Rumex* sp.), hogweed (*Heracleum sphondylium*), white dead-nettle (*Lamium album*) and red dead-nettle (*Lamium purpureum*).

Habitats (onsite) – Drakelow Power Station

Semi-natural Broadleaved Woodland (A1.1.1)

3.29 Semi-natural broadleaved woodland was recorded within the Site forms part of a larger block of woodland to the north of the Burton Road. The species composition varied throughout and as such reference should be made to TN 7 presented in **Table C.1, Appendix C**. Species present in the canopy included dominant to occasional sycamore (*Acer pseudoplatanus*), locally dominant beech (*Fagus sylvatica*), frequent to rare oak (*Quercus* sp.) and Scot's pine (*Pinus sylvestris*), frequent to occasional ash (*Fraxinus excelsior*) and birch (*Betula* sp.), occasional beech (*Fagus sylvatica*) and rare hornbeam (*Carpinus betulus*), Leyland cypress (*Cupressus × leylandii*) and yew (*Taxus baccata*). The shrub layer comprised of frequent to occasional bramble (*Rubus fruticosus* agg.), frequent sycamore (*Acer pseudoplatanus*) regeneration, occasional elder (*Sambucus nigra*), hazel (*Corylus avellana*) and holly (*Ilex aquifolium*), occasional to rare hawthorn (*Crataegus monogyna*), and locally rare cherry laurel (*Prunus laurocerasus*), rhododendron (*Rhododendron ponticum*) and *Prunus* sp. whilst the ground flora comprised of frequent rosebay willowherb (*Chamaenerion angustifolium*), frequent to occasional bluebell (*Hyacinthoides non-scripta*), occasional common nettle (*Urtica dioica*) and ivy (*Hedera helix*), and locally rare wood dock (*Rumex sanguineus*), burdock (*Arctium* sp.), wood avens (*Geum urbanum*), selfheal (*Prunella vulgaris*), creeping buttercup (*Ranunculus repens*) and enchanter's nightshade *Circaea lutetiana*.

Dense Scrub (A2.1)

3.30 Small areas of dense scrub were recorded in the east (TN 8). Species included dominant bramble (*Rubus fruticosus* agg.), abundant young sycamore (*Acer pseudoplatanus*) and silver birch (*Betula pendula*), frequent rosebay willowherb (*Chamaenerion angustifolium*) and occasional elder (*Sambucus nigra*) and buddleia *Buddleja davidii*, and locally rare cherry laurel (*Prunus laurocerasus*).

Poor semi-improved grassland (B4)

3.31 A small area of poor semi-improved neutral grassland was recorded. Species included dominant Yorkshire fog (*Holcus lanatus*) and occasional willowherb (*Epilobium* sp.) (TN 9).

Tall ruderal with bare ground (C3.1/J4)

3.32 A small area of tall ruderal vegetation interspersed with bare ground (TN 10). This included abundant rosebay willowherb (*Chamaenerion angustifolium*), young sycamore (*Acer pseudoplatanus*) and bluebells (*Hyacinthoides non-scripta*), occasional ragwort (*Senecio jacobaea*), cow parsley (*Anthriscus sylvestris*) and cleavers (*Galium aparine*), and locally rare forget-me-knot (*Myosotis* sp.), primrose (*Primula vulgaris*), fringed willowherb (*Epilobium ciliatum*), oak (*Quercus* sp.) and spear thistle (*Cirsium vulgare*).

Bare ground (with tall ruderal (J4/C3.1)

3.33 A small area of bare ground interspersed with tall ruderal vegetation (TN 11). Species included occasional rosebay willowherb (*Chamaenerion angustifolium*) and sycamore (*Acer pseudoplatanus*) and locally rare fringed willow herb (*Epilobium ciliatum*) and oak (*Quercus* sp.).

Standing Water (G1)

3.34 A single pond was recorded partially within the Site in the north of the accessible area of Drakelow Power Station (TN 12). This pond was covered in dominant duckweed (*Lemna* sp.).

3.35 Two ditches were recorded in this section of the Site. Both ditches were shaded by dense tree cover and were covered in dominant duckweed (*Lemna* sp.).

The Wider Area

3.36 The wider area generally comprised open countryside with arable fields, pasture, woodland connected by a network of hedgerow, ditches and streams.

Invasive non-native species

3.37 Invasive non-native species recorded within the Site included Himalayan balsam (*Impatiens glandulifera*), rhododendron *(Rhododendron* sp.), buddleia (*Buddleja davidii*) and cherry laurel (*Prunus laurocerasus*). Himalayan balsam (*Impatiens glandulifera*), rhododendron *(Rhododendron* sp.) and buddleia (*Buddleja davidii*) were recorded at Drakelow Power Station in July 2022 and cherry laurel (*Prunus laurocerasus*) was recorded along the Grid cable route in the west in April 2022.

3.38 One small stand of Japanese knotweed *Fallopia japonica* was identified 400m east of the Site in May 2021.

3.39 Location of invasive species in presented in **Figures 6.5.1a and 6.5.1b, Appendix C**.

Protected Species

3.40 The Phase 1 Habitat Survey was 'extended' to consider habitat suitability for protected and notable species. The Site supported suitable habitat for bats, badger, water vole, otter, breeding birds, great crested newt and reptiles, as summarised below. Full habitat appraisals are reported separately in the following reports:

- **Appendix 6.6: Bat Survey Report**
- **Appendix 6.7: Badger Survey Report (Confidential)**
- **Appendix 6.8: Otter and Water Vole Survey Report**
- **Appendix 6.9: Breeding Bird Survey Report**
- **Appendix 6.10: Great Crested Newt Survey Report**
- **Appendix 6.11: Reptile Report**

Bats

3.41 The majority of the Site comprises species-poor shortly grazed improved pastures and arable fields of low suitability for bats. Habitats of increased value relate to linear field boundaries and watercourses and woodlands located both within, and in close proximity to the Site.

Badger

3.42 The Site as a whole was considered to support optimum badger habitat with improved grassland, arable fields, woodland, bare ground, scrub and network of supporting hedgerows offering excellent opportunities for foraging, dispersing and sett building.

Otter

3.43 The Site supported an unnamed watercourse that ran through the Site and two offsite ponds, including one to the east and one to the west at Park Farm immediately adjacent to the Site, which was considered to provide opportunities for this species for forage and shelter. All habitats supported dense vegetation with scrub, trees or woodland which provided cover and resting opportunities.

Water vole

3.44 The Site was considered to provide limited opportunities for water vole due to the majority of onsite ditches being too small and disconnected from the wider area. However, there was potential for the unnamed watercourse that ran through the Site and two ponds, including one to the east and one to the west at Park Farm to provide opportunities for this species.

3.45 Field survey of the watercourse found the unnamed watercourse to have low suitability for this species due to overshading from dense scrub, trees and woodland and lack of foraging opportunities with limited aquatic and marginal vegetation present.

Birds

3.46 The majority of the Site was of low value to birds, comprising intensively grazed and managed improved grassland with species-poor defunct hedgerows. Higher value habitats included mature and veteran trees, woodlands, a small watercourse along the eastern edge, a vegetated field pond in the west of the Site and tree lines and hedgerows at the edges of the Site.

Great Crested Newt

3.47 The majority of the Site was considered unsuitable for GCN given the intensively managed and grazed improved grassland and arable fields with the majority of the hedgerows, scrub, tall ruderal and scattered trees being poached by livestock and functionally isolated given the surrounding heavily grazed habitats. Optimum habitat was limited to the woodland and scrub which bordered the east, south and west of the Site.

Reptile

3.48 The Site was considered unlikely to support reptiles due to the short, intensively managed and grazed improved grassland with opportunities limited to periphery habitats, including the riparian river corridor, woodland edge, wet ditches, scrub and hedgerows.

Dormouse

3.49 Habitats at the Site were of very low suitability for supporting dormouse, with hedgerows subject to high levels of disturbance, being harshly managed, such as from flailing, and defunct in nature, with a lack of density or diversity. This species typically relies on well-established and connected mature hedgerows and ancient woodland with a diverse range of shrub species for

which the Site does not provide. Given the lack of suitable habitat, dormouse were not further considered.

Chapter 4
Discussion

Designated Sites

Statutory Designated Sites

4.1 The River Mease SAC and SSSI, located 3.4 km to the southwest of the Site, and Cannock Chase SAC, located 20.0km west of the Site were the only statutory designated sites located within the desk study search area. The impacts of the project have been assessed in full within **Appendix 6.2: Report to Inform HRA**.

4.2 The HRA concluded that the project will not result in an adverse effect on the integrity of any European site, either alone or in combination with other plans and projects because there is certainty in the reliability, deliverability and efficacy of the avoidance and mitigation measures which will be implemented.

Non-Statutory Designated Sites

4.3 A total of twenty non-statutory designated sites were present within the desk study search area.

Grove Wood Local Wildlife Site and Copperhill Spinney Potential Local Wildlife Site

4.4 Grove Wood LWS is located within the Site along the Grid cable route corridor and Copperhill Spinney pLWS is located adjacent to the northwest of the southern part of the Site. Qualifying interests include ancient semi-natural woodland and secondary woodland respectively. The proposed design will result in temporary loss to Grove Wood LWS to install the cable route, however this is a loss of habitats that do not contribute to the LWS designation and as an ancient semi-natural woodland so impacts are not considered likely.

Drakelow Local Wildlife Site and Derbyshire Wildlife Trust Nature Reserve

4.5 Drakelow LWS and Derbyshire Wildlife Trust Nature Reserve is designated for its bird assemblage. Due to the distance of the LWS from the proposed scheme at 1km at the closest point and nature of the impacts, which will be restricted to localised loss of habitat to install the cable and implement an access track, the proposals are unlikely to have any impacts upon the habitats and species associated with this non-statutory sites.

Other Local Wildlife Sites

4.6 The remaining seventeen LWSs are designated for their habitats. Given their distances from the Site, proposals are unlikely to have any impacts upon the habitats and species associated with these non-statutory sites.

Previous PEA Recommendations for Oaklands Farm

4.7 The previous PEA for Oaklands Farm[21] concluded the River Mease SAC and SSSI and all LWSs would not be impacted by the Proposed Development given their distance from Oaklands Farm.

Avoidance and Mitigation - Designated Sites

4.8 An assessment of potential impacts of the proposed development on designated sites, along with avoidance / mitigation / compensation measures and habitat enhancements is reported directly in **Chapter 6** of the Environmental Statement and **Chapters 4** and **5** of **Appendix 5.6: Outline Landscape and Ecological Management Plan**.

Habitats

4.9 The habitats within the Site comprised predominantly of improved grassland used for farmland grazing. Other habitats were limited in extent but included arable, hedgerows, treelines, standing water, including an unnamed waterbody and ditches, tall ruderal, diverse grasslands, scrub, woodland and scattered trees. Habitats of higher ecological value included hedgerows, running water, diverse grasslands, woodland and ancient/veteran trees given they provide habitat for a variety of species including bats, badger, GCN, birds and badger.

4.10 The proposed development will result in the loss of improved grassland arable fields, which will be replaced with lowland meadow and species-rich grassland. In addition, there will be small, localised sections of hedgerow, scrub and trees lost and the temporary loss of small, localised areas of running water, to enable the installation of the underground cable route and access track. To mitigate this loss new woodland, hedgerow and scrub planting is proposed.

[21] Arcus, (2020). *Preliminary Ecological Appraisal: Oaklands Solar Farm and Grid Connection Route prepared on behalf of BayWa r.e. UK Limited*

4.11 Ancient woodland, trees and veteran trees were recorded within the Site. These irreplaceable habitats will all be retained and protected.

Previous PEA Recommendations for Oaklands Farm

4.12 The previous PEA at Oaklands Farm[22] recommended the retention and improvement of grassland and enhancement of ecological features and habitats which has informed our assessment.

Avoidance and Mitigation - Habitats

4.13 The scheme has been sensitively designed to focus impacts in area of lower ecological value including improved grassland and arable fields. The vast majority of habitats of higher value to bats, including hedgerows, woodland, trees, unnamed watercourse corridor and open water will be retained and/or enhanced.

4.14 An assessment of potential impacts of the proposed development on habitats, along with avoidance / mitigation / compensation measures and habitat enhancements is reported directly in **Chapter 6** of the Environmental Statement and **Chapters 4** and **5** of **Appendix 5.6: Outline Landscape and Ecological Management Plan**.

Invasive Non-native Species

4.15 Himalayan balsam, rhododendron, buddleia and cherry laurel were recorded within the Site and as such construction activities relating to the installation of the Grid cable route has the potential to result in the spread of these species.

4.16 In addition, Japanese knotweed was recorded within the woodland 400m east of Grid cable route. No development is proposed in this area of the Site and given the distance from proposed development, the potential for construction activities to result in the spread of this species is considered unlikely. However, should the proposed scheme lead to disturbance of this area then avoidance and mitigation measures will be required.

[22] Arcus, (2020). *Preliminary Ecological Appraisal: Oaklands Solar Farm and Grid Connection Route prepared on behalf of Bay Ware. UK Limited*

4.17 An assessment of potential impacts of the proposed development on these species, along with avoidance/mitigation measures are reported directly in **Chapter 6** of the **Environmental Statement**.

Protected Species

4.18 Avoidance, mitigation and enhancement measures relating to habitats, as discussed above, will provide benefits to the protected species identified within this report. Detailed discussion, mitigation and enhancement for each species/group is provided in the following separate reports:

- **Appendix 6.6: Bat Survey Report**
- **Appendix 6.7: Badger Survey Report (Confidential)**
- **Appendix 6.8: Otter and Water Vole Survey Report**
- **Appendix 6.9: Breeding Bird Survey Report**
- **Appendix 6.10: Great Crested Newt Survey Report**
- **Appendix 6.11: Reptile Report**

Appendix A

Policy and Legislation

A.1 Statutory nature conservation sites and protected species are a 'material consideration' in the UK planning process (DCLG 2019). Where planning permission is not required, for example on proposals for external repair to structures, consideration of protected species remains necessary given their protection under UK and EU law.

A.2 Natural England Standing Advice aims to support Local Planning Authorities decision making in respect of protected species (Natural England 2017). Standing advice is a material consideration in determining the outcome of applications, in the same way as any individual response received from Natural England following consultation.

A.3 The Conservation of Habitats and Species Regulations 2017 (SI 2017/1012), as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579) transpose the requirements of the European Habitats Directive (Council Directive 92/43/EEC) and Birds Directive (Council Directive 2009/147/EC) into UK law, enabling the designation of protected sites and species at a European level.

A.4 The Wildlife and Countryside Act 1981 (as amended) forms the key piece of UK legislation relating to the protection of habitats and species.

A.5 The Countryside Rights of Way Act 2000 provides additional support to the Wildlife and Countryside Act 1981; for example, increasing the level of protection for great crested newt.

A.6 The Wild Mammals (Protection) Act 1996 sets out the welfare framework in respect to wild mammals, prohibiting a range of activities that may cause unnecessary suffering.

A.7 The Natural Environment and Rural Communities Act (NERC Act) 2006 created Natural England and the Commission for Rural Communities and extended the biodiversity duty set out in the Countryside and Rights of Way Act (CROW Act) to public bodies and statuary undertakers to ensure due regard to the conservation of biodiversity.

A.8 The Protections of Badgers Act 1992 sets out the legislation relating to badgers.

A.9 The Hedgerows Regulations 1997 makes provision for the protection of important hedgerows in England and Wales.

A.10 Species and Habitats of Principal Importance for Conservation in England and Wales and priority habitats and species listed on the Lowland Derbyshire Biodiversity Action Plans (LBAP) are species which are targeted for conservation. The government has a duty to ensure that involved parties take reasonable practice steps to further the conservation of such species under Section 41 of the Natural Environment and Rural Communities Bill 2006. In addition, the Act places a biodiversity duty on public authorities who 'must, in exercising their functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity' (Section 40 [1]). Criteria for selection of national priority habitats and species in the UK include international threat and marked national decline.

A.11 The National Planning Policy Framework (2023) states (Section 15) that the planning system should identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks; promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

A.12 It also states that local planning authorities should refuse planning on the following principles:

- If significant harm to biodiversity resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for.
- If development is on land within or outside a site of Special Scientific Interest (SSSI), and is likely to have an adverse effect on it (the exception being where the benefits of the development in the location proposed clearly outweigh its likely impact).
- If development results in the loss or deterioration of irreplaceable habitats, such as ancient woodland and ancient or veteran trees (unless there are wholly exceptional reasons and a suitable compensation strategy exists).

A.13 Additionally, the NPPF states that development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

Bats

A.14 All British species of bat are listed on the **Wildlife and Countryside Act 1981 (as amended) Schedule 5**. It is an offence to deliberately kill, damage, take **(Section 9(1))** a bat; to intentionally or recklessly disturb a bat whilst it occupies a place of shelter or protection **(Section 9(4)(b))**; or to deliberately or recklessly damage, destroy or obstruct access to a bat roost **(Section 9(4)(c))**. Given the strict nature of these offences, there is an obligation on the developer and owner of a site to consider the presence of bats.

A.15 All British bats are listed on the **Conservation of Habitats and Species Regulations 2017, Schedule 2**. **Regulation 41** strengthens the protection of bats under the 1981 Act against deliberate capture or killing **(Regulation 41(1) (a))**, deliberate disturbance **(Regulation 41(1) (b))** and damage or destruction of a resting place **(Regulation 41(1) (d))**.

A.16 A bat roost is defined as any structure or place which is used for shelter or protection, irrespective of whether or not bats are resident. Buildings and trees may be used by bats for a number of different purposes throughout the year including resting, sleeping, breeding, raising young and hibernating. Use depends on bat age, sex, condition and species as well as the external factors of season and weather conditions. A roost used during one season is therefore protected throughout the year and any proposed works that may result in disturbance to bats, and loss, obstruction of or damage to a roost are licensable.

Application for a Natural England EPS Licence

A.17 Development works that may cause killing or injury of bats or that would result in the damage, loss or disturbance of a bat roost would require a Natural England (NE) Bat Mitigation Licence. For a Mitigation licence to be granted three tests must be met. Evidence is needed to determine these three tests: whether there is a need for the development which justifies the impact on the European Protected Species (EPS); whether there is an alternative which would avoid the impact and need for an EPS licence; and whether mitigation proposed is sufficient to maintain the conservation status of the EPS in question. A Mitigation Licence application will generally only be considered by NE on receipt of planning consent, and once any pre-commencement conditions of relevance to ecology have been discharged. There are two licensing routes now available for bats, which comprise:

Full NE England EPS Mitigation Licence

A.18 NE aim to determine the application within six weeks (although this can take longer).

- The application comprises three components including an application form (broad details of the applicant, site and proposals);
- A detailed Method Statement providing the survey methods and findings, impact assessment and mitigation measures (including detailed maps and schedule of works); and a Reasoned Statement outlining the „need" for the development and consideration of alternatives.

NE Low Impact Class Licence

A.19 This new route provides an alternative, quicker route (with a much reduced application form, and a target of 10 days to determine an application).

A.20 This Low Impact Class Licence is only available to Registered Consultants identified by NE. This is available for sites which support up to three low status roosts (day roosts, night roosts, feeding roosts and transitional roosts) of a maximum of three common species.

A.21 The common species which can be covered by this licence include common pipistrelle, soprano pipistrelle, brown long-eared, whiskered, Brandts, Daubenton's and Natterer's bat.

A.22 All licensed works require evidence that there is a need for the development and that appropriate mitigation, including seasonal constraints and provision of alternative habitat and/or roosting structures is considered.

A.23 Before Natural England can confirm the site is registered and licensable works can commence, an assessment of the three tests must be undertaken by the Registered Consultant. Although this does not need to be submitted to NE, NE may subsequently undertake a review of the project and request to see all evidence as collected by the Consultant. This can only be undertaken following a survey and impact assessment which must be carried out in accordance with licence conditions and BCT survey guidelines.

A.24 This licence cannot be used in relation to trees.

A.25 Several species of bat, including brown long-eared and soprano pipistrelle are listed as species of principal importance under the **NERC Act (2006)**. **Section 41** of the Act is used to guide decision-makers such as public bodies, including local and regional authorities, in

implementing their duty under section 40 of the **Natural Environment and Rural Communities Act 2006**, to have regard to the conservation of biodiversity in England, when carrying out their normal functions

Badger

A.26 The Protection of Badgers Act 1992 provides specific protection for this species. Under this act it is an offence to take, kill or injure badgers or cause cruelty to badgers. It is also an offence to interfere with a badger sett (including digging for badgers, permitting dogs to enter a badger sett, obstructing the entrance to, or destroying a badger sett or disturbing a badger when it is occupying a sett); or to buy or offer for sale or otherwise possess a live badger. Works which may result in damage to a badger sett, or potential disturbance to badger using setts, must be undertaken under a Natural England licence.

Water vole

A.27 Water vole and their places of shelter are protected by the Wildlife and Countryside Act 1981 (as amended). This Act gives protection to water vole with regard to killing, injury and taking, and to their places of shelter with regard to obstructing, damaging and destruction.

Otter

A.28 Otter is listed on the Wildlife and Countryside Act 1981 (as amended) Schedule 5. It is an offence to deliberately kill, damage, take (Section 9(1)) an otter; to intentionally or recklessly disturb an otter whilst it occupies a place of shelter or protection (Section 9(4)(b)); or to deliberately or recklessly damage, destroy or obstruct access to a n otter shelter (Section 9(4)(c)). Given the strict nature of these offences, there is an obligation on the developer and owner of a site to consider the presence of otter.

A.29 Otter is listed on the Conservation of Habitats and Species Regulations 2017 (as amended), Schedule 2. Regulation 41 strengthens the protection of otter under the 1981 Act against deliberate capture or killing (Regulation 41(1) (a)), deliberate disturbance (Regulation 41(1) (b))[1] and damage or destruction of a resting place (Regulation 41(1) (d)).

[1] Relates specifically to deliberate disturbance in such a way as to be likely to significantly affect i) the ability of any significant group of animals of that species to survive, breed or rear or nurture their young or ii) the local distribution of that species.

A.30 An otter shelter is defined as any structure or place which is used for shelter or protection, irrespective of whether or not otters are resident. The classification of otters shelters is described in Chapter 3 above. A shelter used during one season is protected throughout the year and any proposed works that may result in disturbance to otters, and loss, obstruction of or damage to a shelter are licensable.

Application for a Natural England EPS Licence

A.31 Development works that may cause killing or injury of otter or that would result in the damage, loss or disturbance of an otter shelter would require a Natural England (NE) Mitigation Licence.

A.32 For a Mitigation licence to be granted three tests must be met. Evidence is needed to determine these three tests: whether there is a need for the development which justifies the impact on the European Protected Species (EPS); whether there is an alternative which would avoid the impact and need for an EPS licence; and whether mitigation proposed is sufficient to maintain the conservation status of the EPS in question.

A.33 A Mitigation Licence application will generally only be considered by NE on receipt of planning consent, and once any pre-commencement conditions of relevance to ecology have been discharged.

A.34 Otter are also listed as species of principal importance under the NERC Act (2006). Section 41 of the Act is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Nesting Birds

A.35 Birds and their nests are protected by the Wildlife and Countryside Act 1981 (as amended). This Act gives protection to all species of bird with regard to killing and injury, and to their nests and eggs with regard to taking, damaging and destruction. Certain species listed on Schedule 1 of the Act, are afforded additional protection against protection.

Great Crested Newt

A.36 GCN are listed on the Wildlife and Countryside Act 1981 (as amended) Schedule 5. It is an offence to deliberately kill, damage, take (Section 9(1)) GCN; to intentionally or recklessly disturb a GCN whilst it occupies a place of shelter or protection (Section 9(4)(b)); or to deliberately or recklessly damage, destroy or obstruct access to a place of shelter (Section 9(4)(c)). Given the strict nature of these offences, there is an obligation on the developer and owner of a site to consider the presence of GCN.

A.37 GCN are listed on the Conservation of Habitats and Species Regulations 2017 (SI 2017/1012), as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579). Regulation 41 strengthens the protection of GCN under the 1981 Act against deliberate capture or killing (Regulation 41(1) (a)), deliberate disturbance (Regulation 41(1) (b)) and damage or destruction of a resting place (Regulation 41(1) (d)).

A.38 Development works that may cause killing or injury of GCN or that would result in the damage, loss or disturbance of a place of shelter would require a Natural England (NE) Mitigation Licence. Licensed works require evidence that the works entailing detrimental impacts are unavoidable, as well as appropriate mitigation, which may include seasonal constraints and provision of alternative habitat. A NE Mitigation Licence application can only be submitted on completion of surveys and receipt of planning consent. The application typically takes six weeks to process, after which mitigation could commence.

A.39 GCN are also listed on the UK BAP. Under the NERC Act, 2006 the Government has a duty to ensure that parties take reasonable practicable steps to further the conservation of this species.

Reptiles

A.40 The Wildlife and Countryside Act 1981 makes it an offence to intentionally kill or injure any of our native snakes and lizards. The sand lizard *Lacerta agilis*, and smooth snake *Coronella austriaca,* receive additional protection' for these species is it unlawful to capture or possess them, or to damage / obstruct access to places they use for shelter or protection, or to disturbed them whilst in such a place for these species, therefore, a license is required for surveys which will involve, for example, using refuges. Observation without handling or disturbance is not licensable

Appendix B

Designated Sites within Search Area

B.1 Figure 6.1 Statutory Designated Sites

B.2 Figure 6.2 Non-statutory Designated Sites

Oaklands Farm Solar Park
for Oaklands Farm Solar Ltd

Figure 6.1: Statutory Designated Sites

- Site boundary
- Site boundary 5km buffer
- Site boundary 15km buffer
- Site boundary 20km buffer
- Special Area of Conservation (SAC)
- Site of Special Scientific Interest (SSSI)

Hilton Gravel Pits
Boulton Moor
Old River Dove, Marston on Dove
Forest Banks
Donington Park
Blithfield Reservoir
Goat Lodge
Ticknall Quarries
Carver's Rocks
Breedon Hill
Braken Hurst
Calke Park
Dimminsdale
Pasture and Asplin Woods
Stafford Brook
Breedon Cloud Wood and Quarry
Lount Meadows
Cannock Chase
Grace Dieu and High Sharpley
Gentleshaw Common
River Mease
Chasewater And The Southern Staffordshire Coalfield Heaths
Stowe Pool and Walk Mill Clay Pit
Newton Burgoland Marshes
Ashby Canal
Alvecote Pools
Birches Barn Meadows
Sheepy Fields
Kingsbury Brickworks
Middleton Pool
Kingsbury Wood

0 4 8 km

Map scale 1:175,000 @ A3

PINS reference: EN010122

Oaklands Farm Solar Park
for Oaklands Farm Solar Ltd

Figure 6.2: Non-statutory Designated Sites

- Site boundary
- Site boundary 2km buffer
- Derbyshire Wildlife Trust Reserve
- Local Wildlife Site (LWS)
- Potential Local Wildlife Site (pLWS)

Drakelow
Drakelow Wildfowl Reserve
Grove Wood
Barn Farm Pond
Hill Covert
Borough Hill Wetland
Walton Hall
The Dumps
Rosliston Forestry Centre - Hedge
New Ozier Bed Pond
Walton Wood
Rosliston Forestry Centre - Meadow Pond
Church Farm Pond
Church Farm Pond
Church Street Grassland
Mansditch Farm Pond
Brick Kiln Pits
Hill Close Wood Pond
Homestall Pond
Homestall Wood

0 1 2 Km

Map scale 1:32,000 @ A3

PINS reference: EN010122

Appendix C

Phase 1 Habitat Map and Target Notes

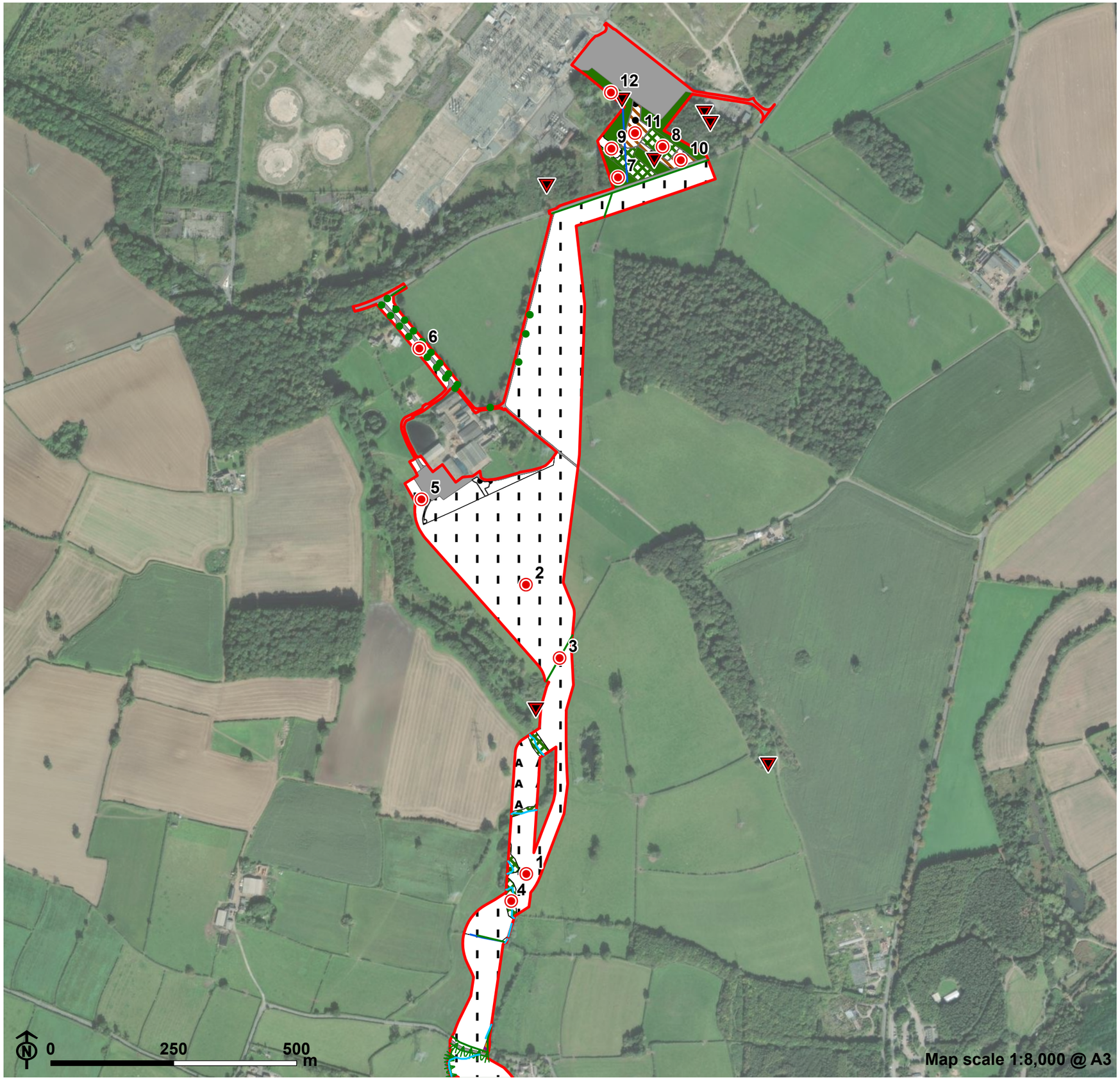
C.1 Figure 6.5.1a Phase 1 Habitat Map - North

C.2 Figure 6.5.1a Phase 1 Habitat Map - South

C.3 Table C.1 Extended Phase 1 Habitat Survey - Target Notes

Oaklands Farm Solar Park
for Oaklands Farm Solar Ltd

Figure 6.5.1a: Phase 1 Habitat Plan North



- Site boundary
- Target note
- Invasive species

Phase 1 linear

- G1 Standing water
- G2 Running water
- J2.1.1 Intact hedge (native species-rich)
- J2.1.2 Intact hedge (species-poor)
- J2.3.1 Hedge with trees (native species-rich)
- TL Tree line

Phase 1 habitat

- A1.1.1 Broadleaved woodland (semi-natural)
- A2.1 Scrub (dense/continuous)
- B4 Improved grassland
- B5 Marshy grassland
- B6 Poor semi-improved grassland
- C3.1 Other tall herb and fern (ruderal)
- C3.1 Other tall herb and fern (ruderal)/J4 Bare ground
- G1 Standing water
- HS Hard standing
- J1.1 Arable
- J4 Bare ground

PINS reference: EN010122

Oaklands Farm Solar Park
for Oaklands Farm Solar Ltd

Figure 6.5.1b: Phase 1 Habitat Plan South

Site boundary

Phase 1 linear

- G1 Standing water
- G2 Running water
- J2.1.1 Intact hedge (native species-rich)
- J2.1.2 Intact hedge (species-poor)
- J2.2.1 Defunct hedge (native species-rich)
- J2.2.2 Defunct hedge (species-poor)
- J2.3.1 Hedge with trees (native species-rich)
- J2.3.2 Hedge with trees (species-poor)
- J2.4 Fence
- J2.6 Dry ditch
- TL Tree line

Phase 1 habitat

- A1.1.1 Broadleaved woodland (semi-natural)
- A2.1 Scrub (dense/continuous)
- A2.2 Scrub (scattered)
- B2.2 Neutral grassland (semi-improved)
- B4 Improved grassland
- B5 Marshy grassland
- B6 Poor semi-improved grassland
- C3.1 Other tall herb and fern (ruderal)
- C3.1 Other tall ruderal/A3.2 Coniferous scattered trees
- G1 Standing water
- HS Hard standing
- J1.1 Arable
- J4 Bare ground

N 0 250 500 m

Map scale 1:7,500 @ A3

PINS reference: EN010122

Table C.1: Extended Phase 1 Habitat Survey - Target Notes

Target Note Number	Description	Photograph
Within Park Farm		
1 and 2	**B4 Improved grassland** pasture fields. Abundant perennial ryegrass *Lolium perenne* and annual meadow-grass *Poa annua*, frequent soft brome *Bromus hordeaceus*, occasional creeping buttercup *Ranunculus repens*, rarely dandelion *Taraxacum officinale* agg., meadow foxtail *Alopecurus pratensis*, white clover *Trifolium repens*, lesser stitchwort *Stellaria graminea*, red clover *Trifolium pratense*, lesser trefoil *Trifolium dubium* and cuckoo flower *Cardamine pratensis*. Crested dog's tail *Cynosurus cristatus* was locally dominant. Mature oak *Quercus sp.*, trees were rarely noted across the fields.	
3	**J2.1.2 Intact hedge (species-poor)** Dominated by blackthorn (*Prunus spinosa*).	No photograph.

Target Note Number	Description	Photograph
	Ground flora comprised abundant common nettle (*Urtica dioica*) with rarely dock (*Rumex* sp.), common hogweed (*Heracleum sphondylium*), white dead-nettle (*Lamium album*) and red dead-nettle (*Lamium purpureum*).	
4	**G2 Running water** Unnamed watercourse with riparian vegetation and good water quality. Dense scrub present with species including abundant alder *Alnus glutinosa* and hawthorn *Crataegus monogyna* and frequent elder *Sambucus nigra*, willow *Salix* sp. and bramble *Rubus fruticosus* agg.	
5	**B6 Poor semi-improved grassland** Grassland with machinery and refuse piles.	
6	**TL Treelines** Treelines supporting mature trees were recorded in the north of Park	No photograph.

Target Note Number	Description	Photograph
	Farm along the access tracks. Species included dominant lime (*Tilia* sp.).	
Within Drakelow Power Station		
7	**A1.1.1 Semi-natural Broadleaved Woodland** Species in the west of the Site included abundant sycamore (*Acer pseudoplatanus*), frequent Scot's pine (*Pinus sylvestris*), oak (*Quercus* sp.), silver birch (*Betula pendula*), occasional beech (*Fagus sylvatica*) and locally rare yew (*Taxus baccata*) and hawthorn (*Crataegus monogyna*). The shrub layer included frequent bramble (*Rubus fruticosus* agg.) and occasional elder (*Sambucus nigra*) scrub with ground flora including frequent bluebell (*Hyacinthoides non-scripta*). In the south of the centre of the Site, species included abundant sycamore (*Acer pseudoplatanus*), frequent birch (*Betula* sp.), occasional beech (*Fagus sylvatica*) and oak (*Quercus* sp.) and locally rare Scot's pine *Pinus sylvestris*). The shrub layer and ground	

Target Note Number	Description	Photograph
	flora was very limited with occasional bluebell (*Hyacinthoides non-scripta*) and locally rare rhododendron (*Rhododendron ponticum*). Between the areas of dense scrub and tall ruderal in the southeast of the Site, the woodland was dominated by sycamore (*Acer pseudoplatanus*) with occasional birch (*Betula* sp.) and locally rare oak (*Quercus* sp.). Ground flora included frequent rosebay willowherb (*Chamaenerion angustifolium*) and bluebell (*Hyacinthoides non-scripta*). No veteran trees were present and no signs of disturbance was noted. The area of semi-natural broadleaved woodland in the east of the Site was dominated by beech (*Fagus sylvatica*) with frequent birch (*Betula* sp.), occasional Scot's pine (*Pinus sylvestris*), holly (*Ilex aquifolium*), sycamore (*Acer pseudoplatanus*), ash (*Fraxinus excelsior*) and oak *Quercus* sp.) and locally rare leylandii (*Cupressus × leylandii*), hawthorn (*Crataegus monogyna*) and yew	

Target Note Number	Description	Photograph
	(*Taxus baccata*). The shrub layer consisted of frequent bramble (*Rubus fruticosus* agg.), ivy (*Hedera helix*) and nettle (*Urtica dioica*) with occasional elder (*Sambucus nigra*) and bluebell (*Hyacinthoides non*-scripta) and locally rare rhododendron (*Rhododendron ponticum)* and enchanters nightshade (*Circaea lutetiana*). In the north of the centre of the Site, species included frequent oak (*Quercus* sp.), ash (*Fraxinus excelsior*) and sycamore (*Acer pseudoplatanus*), occasional beech (*Fagus sylvatica*) and birch (*Betula* sp.) and locally rare hornbeam (*Carpinus betulus*). The shrub layer included occasional elder (*Sambucus nigra*), hazel (*Corylus avellana*), bramble (*Rubus fruticosus* agg.) and hawthorn (*Crataegus monogyna*) and locally rare cherry laurel (*Prunus laurocerasus*) and *Prunus* sp. Ground flora included occasional nettle *Urtica dioica* and locally rare wood dock (*Rumex sanguineus*), burdock (*Arctium* sp), wood avens (*Geum urbanum*), selfheal	

Target Note Number	Description	Photograph
	(*Prunella vulgaris*) and creeping buttercup (*Ranunculus repens*).	
8	**A2.1 Dense Scrub** Small areas of dense scrub were recorded adjacent to the mixed plantation woodland (TN 12) and in the east (TN 13). Species included dominant bramble (*Rubus fruticosus* agg.), abundant young sycamore (*Acer pseudoplatanus*) and silver birch (*Betula pendula*), frequent rosebay willowherb (*Chamaenerion angustifolium*) and occasional elder (*Sambucus nigra*) and buddleia (*Buddleja davidii*), and locally rare cherry laurel (*Prunus laurocerasus*).	
9	**B2.2 Semi-improved Neutral Grassland** A small area of semi-improved neutral grassland was recorded. Species included dominant Yorkshire fog (*Holcus lanatus*) and occasional willowherb (*Epilobium* sp.)	

Target Note Number	Description	Photograph
10	**C3.1 / J4 Tall Ruderal with Bare Ground** A small area of tall ruderal vegetation interspersed with bare ground. This included abundant rosebay willowherb (*Chamaenerion angustifolium*), young sycamore (*Acer pseudoplatanus*) and bluebells (*Hyacinthoides non-scripta*), occasional ragwort (*Senecio jacobaea*), cow parsley (*Anthriscus sylvestris*) and cleavers (*Galium aparine*), and locally rare forget-me-knot (*Myosotis* sp.), primrose (*Primula vulgaris*), fringed willowherb (*Epilobium ciliatum*), oak (*Quercus* sp.) and spear thistle (*Cirsium vulgare*).	
11	**J4 / C3.1 Bare Ground with Tall Ruderal** A small area of bare ground interspersed with tall ruderal vegetation. Species included occasional rosebay willowherb (*Chamaenerion angustifolium*) and sycamore (*Acer pseudoplatanus*) and locally rare fringed willow herb	

Target Note Number	Description	Photograph
	(*Epilobium ciliatum*) and oak (*Quercus* sp.).	
12	**G1 Standing water** A single pond in the north of the accessible area of Drakelow Power Station, covered in dominant duckweed (*Lemna* sp.)