



OAKLANDS FARM SOLAR PARK

Applicant: Oaklands Farm Solar Ltd

Environmental Statement

Appendix 6.4 – Breeding Bird Survey Report

January 2024

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Oaklands Farm Solar Park - Environmental Statement Volume 3

Appendix 6.4: Arcus Breeding Bird Survey Report

Final report

Prepared by LUC

January 2024



ARCUS

2020 BREEDING BIRD SURVEY REPORT

OAKLANDS SOLAR FARM

BAYWA.RE UK LTD.

3719, VERSION 1-1

JULY 2020



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1 SUMMARY

This report has been produced for BayWa.re UK Ltd. to inform development design and planning submission strategy for a proposed solar development near Walton-upon-Trent, South Derbyshire.

A three-visit Breeding Bird Survey was carried out to establish the bird interests at the Site and recorded 56 bird species, including 22 species of conservation concern. Eleven species of conservation concern showed evidence of breeding within the BBS Area, including six species within the Site Boundary.

The proposed Development has the potential to adversely impact bird species and some mitigation and/or enhancements will be required. Provisional mitigation measures are proposed; however, Site- and Development-specific measures may also be required but are subject to review of the Development design and proposed construction timetable.

If the project is to be progressed as a Nationally Significant Infrastructure Project (NSIP), some further Breeding Bird Surveys and additional Desk Study data may be required to inform potential impacts.

2 INTRODUCTION

Arcus Consultancy Services Limited (Arcus) were instructed by BayWa.re UK Ltd. to undertake Breeding Bird Surveys (BBS) at Coton Road, Walton-upon-Trent, South Derbyshire, East Midlands, DE12 8LP (henceforth referred to as the 'Site').

The Development is a proposed solar farm including arrays of photovoltaic panels and associated infrastructure; however, the full design and layout is not yet available.

The Preliminary Ecological Appraisal¹ recorded areas of habitat which could provide suitable breeding habitat for birds. Therefore, BBS were undertaken to determine species richness and spatial distribution of breeding birds within the Site and immediate surrounds, and provide a basis on which to assess the potential for disturbance and/or harm to bird species during the construction, decommissioning and operational phases of the Development.

This report describes the methods and results of this survey and provides an overview of the associated potential constraints to the Development, with recommendations for any further survey effort, mitigation and/or enhancements.

The report is supported by the following appendices:

- Appendix A – Planning Policy, Legislation and select Guidance;
- Appendix B – Bird Species Names and Conservation Designations;
- Appendix C – Figures; and
- Appendix D – Field Survey Details.

2.1 Planning policy, legislation and guidance

The following planning policy, legislation, and guidance were consulted during preparation of this report, with a further summary of each provided in Appendix A:

- European Union (Withdrawal) Act 2018²;
- Directive 2009/147/EC on the Conservation of Wild Birds ('Birds Directive')³;
- Wildlife and Countryside Act 1981 (as amended)⁴;
- Natural Environment and Rural Communities (NERC) Act 2006⁵; and
- Birds of Conservation Concern (BoCC) 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man (Eaton *et al.*, 2015)⁶.

English (British) vernacular and scientific names of bird species referred to in this report follow the British List maintained by the British Ornithologists' Union (BOU)⁷, with a full list provided in Appendix B.

¹ Arcus (2020) Oaklands Solar *Preliminary Ecological Appraisal Report*, York UK

² UK Government (2018) European Union (Withdrawal) Act 2018 [Online] Available at: <http://www.legislation.gov.uk/ukpga/2018/16/contents> (Accessed 03/07/20)

³ European Parliament (2009) Directive 2009/147/EC [Online] Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0147&from=EN> (Accessed 03/07/20)

⁴ UK Government (1981) The Wildlife and Countryside Act 1981 (as amended) [Online] Available at: <http://www.legislation.gov.uk/ukpga/1981/69> (Accessed 03/07/20)

⁵ UK Government (2006) Natural Environment and Rural Communities Act 2006 [Online] Available at: <http://www.legislation.gov.uk/ukpga/2006/16/section/41> (Accessed 03/07/2020)

⁶ Eaton M.A., Aebischer N.J., Brown A.F., Hearn R.D., Lock L., Musgrove A.J., Noble D.G., Stroud D.A. and Gregory R.D. (2015). Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. *British Birds* 108, 708–746.

⁷ British Ornithologists' Union. (2017) The British List: A Checklist of Birds of Britain (9th edition). *Ibis* 160, 190-240.

3 METHODS

3.1 Desk Study

A desk study was undertaken as part of the Preliminary Ecological Appraisal¹ and this was reviewed to inform this report.

The desk study included a search of designated sites within or around the Site and a request for species records from the Derbyshire Biological Records Centre⁸, including all records within the Site boundary and 2 km buffer. Relevant desk study results are summarised in Section 4.1.

A further search of publicly accessible data (including NBN Atlas⁹, and eBird¹⁰ websites) was made for some select species that could trigger a requirement for further surveys, e.g. barn owl, lapwing or golden plover, wildfowl, with records referenced separately in this report, where applicable.

3.2 Field Survey

A BBS was carried out between April and June 2020.

The BBS followed a reduced version of the British Trust for Ornithology's (BTO) method for the Common Birds Census (CBC)¹¹. The surveyor walked slowly around the BBS Area recording and mapping all species encountered, including behavioural observations where applicable. Survey efforts focussed on field margins and hedgerows, with open habitats searched using binoculars. This is considered the most appropriate method for the predominantly lowland farmland habitats present in the BBS Area.

The BBS Area included all land within the Site Boundary and an additional 500 m buffer, where accessible (Appendix C, Figure 1).

Three visits were carried out on the following dates:

- Visit 1: 27th April 2020;
- Visit 2: 14th May 2020; and
- Visit 3: 3rd June 2020.

Full details of the survey times and weather observations during each survey are provided in Appendix D.

3.2.1 Data analysis

Data analysis focussed on identifying breeding territory locations of species of conservation concern, which included any bird species matching one or more of the following criteria:

- Annex I listed species on the Birds Directive³;
- Schedule 1 listed species on the Wildlife and Countryside Act 1981 (as amended)⁴;
- Species of Principal Importance listed on the NERC Act, 2006⁵; and
- Red- and Amber-listed birds of conservation concern⁶.

To analyse the data, all registrations of these species were transferred from the field maps to produce 'species summary maps' from which the number and distribution of likely territories for each species could be determined. The method was based on that described by Bibby (2000)¹², with an element of professional judgement.

⁸ <https://www.derbyshirewildlifetrust.org.uk/derbyshire-biological-records-centre>

⁹ <https://nbnatlas.org/> (Accessed 03/07/2020)

¹⁰ <https://ebird.org/map> (Accessed 03/07/2020)

¹¹ Marchant, J. (1983) *Common Birds Census Instructions*. British Trust for Ornithology, Thetford.

¹² Bibby, C.J., Burgess, N.D., Hill, D.A. and Mustoe, S.H. (2000). *Bird Census Techniques*, 2nd edition. Academic Press, London

For most species, a precautionary approach was taken and a bird was deemed to be holding territory if it was recorded singing or exhibiting other behaviour indicative of breeding during just one of the three BBS visits. For more mobile species (e.g. curlew) a minimum of two registrations in an area was recorded as a territory. For semi-colonial species (e.g. house sparrow, house martin), analysis was based on Bibby (2000)¹², by identifying clusters of observations and taking the high-count from within each cluster and dividing by two.

3.3 Survey Limitations

Outside of the Site Boundary, access was restricted to public rights of way; however, these offered good coverage of the much of the 500 m buffer area. Where access was not possible, the area was searched from accessible points by listening and scanning the area using binoculars.

Due to the size of the BBS Area, surveys took longer and continued later in the day than would be considered optimal. The area within the Site Boundary was prioritised and, to minimise any bias, a different route was taken during each visit to sample different areas of the Site at different times of the survey.

The weather conditions were good for the first two survey visits, but sub-optimal for the third with persistent light rain; however, results were broadly consistent with the first two visits.

Despite the limitations identified, the survey results are considered to be an accurate reflection of the ornithology interest at the Site (see Section 4.3).

4 RESULTS

4.1 Desk Study

4.1.1 Designated Sites

There are no designated sites with bird interest within 2km of the Site.

4.1.2 Existing records

The desk study returned three records of birds within 2km of the Site. These were two yellowhammer records and a house sparrow record.

4.2 Field Surveys

A total of 56 species were recorded during the BBS.

Of these, 22 were species of conservation concern (as defined in Section 3.2.1) including 11 that showed evidence of breeding or holding territory. Six species of conservation concern were recorded breeding or holding territory within the Site Boundary. Breeding and non-breeding species of conservation concern are summarised in Tables 4.1 and 4.2 respectively.

Approximate territory locations of species of conservation concern are shown in Appendix C, Figure 2. Territory locations are shown as the approximate mid-point of observations that were used to identify the territory.

The conservation status of all species recorded are provided in Appendix B.

Table 4.1: Species of conservation concern breeding or holding territory

Species	Number of Territories Within BBS Area	Details
Lapwing	1	A single displaying lapwing was recorded in the west of the BBS Area, in the buffer during the May survey visit.
Cuckoo	2	Two singing male cuckoos were recorded in woodland in the buffer in the east of the BBS Area during the May survey visit.
Skylark	28	A minimum of 28 territory holding males were identified, including 19 within the Site Boundary. Although widely distributed throughout the BBS Area, the birds seemed to favour the larger arable fields in the south of the Site.
House martin	2	Two pairs of house martin were present in both May and June, and presumed to be breeding, around Ladsgrove Cottage, in the south of the BBS Area.
Willow warbler	11	A minimum of 11 willow warbler territories were identified, primarily in wooded and scrubby habitats in the buffer of the BBS Area. One singing male was recorded within the Site Boundary.
Song thrush	11	Eleven territory-holding song thrush were recorded. Most were located in woodland habitats in the buffer; however, one was recorded in the hedgerow along the north of the Site Boundary.
Mistle thrush	1	One singing mistle thrush was recorded during June in the north of the BBS Area. This species typically breeds very early in the spring; therefore, further territories may be present in the area but undetected during the surveys.
House sparrow	56	A minimum of 56 house sparrow pairs were recorded. All were associated with farms or buildings in the Site buffer; however, it is likely that these breeding birds forage within the Site Boundary.
Dunnock	50	At least 50 territory-holding dunnock were recorded, with peak numbers of singing birds in May. Birds were widely and evenly scattered among hedgerow, woodland and scrubby habitats throughout the BBS Area, including 26 wholly or partly within the Site Boundary.
Linnet	24	A minimum of 24 linnet pairs were identified in hedgerow and scrub habitats with the BBS Area. Birds were widely distributed but with loose clusters present within the west and southeast of the Site Boundary.
Yellowhammer	35	Thirty-five yellowhammer territories were scattered in hedgerow habitats across the BBS Area, including at least 17 wholly or partly within the Site Boundary.

Table 4.2: Species of conservation concern recorded during the BBS but not considered to be holding territory

Species	Details
Greylag goose	Two greylag geese were observed overflying the BBS Area during the April survey visit.
Mallard	Mallard were recorded in small numbers during both the April and May survey visits, mostly overflying the Site or near small waterbodies associated with farms. There does not appear to be suitable habitat for this species to breed within the Site Boundary.
Curlew	Two curlew flew north through the east of the BBS Area during the April visit, but did not land, and this species was not observed subsequently.

Species	Details
Black-headed gull	Small flocks of black-headed gull, numbering between four and 12 birds, were observed flying through the BBS Area during all BBS visits.
Herring gull	Three herring gull flew northeast over the BBS Area during the May visit.
Stock dove	Singles or pairs of stock dove were recorded during all BBS visits but no evidence of breeding was recorded.
Swift	Small flocks, of typically less than five birds, were recorded overflying the BBS Area during both the May and June BBS visits.
Kestrel	Kestrel was observed during all survey visits but always single birds and in widely scattered locations. No evidence of breeding was recorded but suitable breeding habitat may be present within the BBS Area it is possible that a nesting attempt was made on Site or in the wider area.
Starling	Small numbers of starling were recorded during both May and June, with juvenile birds observed in the latter month. No evidence of breeding was observed but it is possible that this species bred in suitable habitat (e.g. around some of the farms and/or housing areas, or in tree cavities) within the BBS Area.
Yellow wagtail	Individual yellow wagtails were recorded in areas of potentially suitable breeding habitat during the May and June BBS visits but no territorial or breeding behaviour was observed.
Bullfinch	Bullfinch was observed on two BBS visits in the east of the BBS Area. This species could nest in the woodland and scrub habitats found in the buffer but no evidence of breeding was recorded.

A further 34 bird species (not of conservation concern¹³) were recorded; those believed to be breeding or holding territory within the BBS Area are underlined: Canada goose, grey heron, cormorant, moorhen, pheasant, red-legged partridge, sparrowhawk, buzzard, woodpigeon, collared dove, great spotted woodpecker, jay, magpie, jackdaw, rook, carriion crow, raven, long-tailed tit, blue tit, great tit, swallow, chiffchaff, garden warbler, blackcap, whitethroat, lesser whitethroat, goldcrest, wren, blackbird, robin, pie d wagtail, chaffinch, greenfinch and goldfinch.

4.3 Results Reliability and Discussion

The species recorded during the Field Surveys are considered an accurate reflection of the bird interests at the Site, based on the geographic location and habitats present.

The bird breeding season can be protracted and influenced by local and national weather events with different species active at different times. It is inevitable that not all birds will be recorded during every visit and as a result some species may be over- or under-recorded. Some early breeding or cryptic species, such as tawny owl and mistle thrush, could be present or breed in greater numbers in the BBS Area; however, their detection would not influence the conclusions or any mitigation proposed.

The Site is considered to have limited potential to support Schedule 1 bird species, with the possible exception of barn owl. No records of barn owl were returned during the desk study, and during a search of publicly available data sources, no records were found within the Site Boundary and no suitable nest sites were noted during the field survey.

Habitats within the Site Boundary are primarily open, including arable and grazing areas with ground-nesting species associated with these habitats, e.g. skylark, likely to be the most affected by any development works due to habitat loss. Other species of conservation concern recorded, e.g. dunnoek, linnnet, and yellowhammer, require a mix of hedgerows

¹³ Green-listed BoCC and not listed as SPI, Schedule 1 or Annex I, as cited previously.

for nesting and fields and field margins for foraging. These species could therefore be impacted by loss of foraging habitat and, if hedgerows and field margins are not retained, loss of nesting habitat. Mitigation and/or enhancements will be required to avoid and/or minimise any adverse impacts on bird species within the Site and immediate surroundings.

5 RECOMMENDATIONS

5.1 Further Survey

5.1.1 Non-breeding season

Non-breeding bird interests are currently scoped out of survey and assessment.

The habitats present could be expected to hold small numbers of passerine species during the non-breeding season (broadly September–March), potentially including some SPI or red-listed species of conservation concern such as skylark and linnet; however, in the context of the wider area and surrounding habitats, the Site is considered highly unlikely to be important, or to hold significant numbers of any notable species.

The desk study returned very few bird records and no noteworthy wintering species, and an additional search of publicly available data sources found no records of species such as lapwing, golden plover or wildfowl, within the Site Boundary.

General mitigation and enhancements should include measures that will protect and/or benefit possible non-breeding bird interest at the Site.

5.1.2 Breeding season

The results presented herein are considered an accurate reflection of the bird interests at the Site; however, if the project is progressed as an NSIP, due to the scale of the Development, repeat surveys may be required to ensure the dataset is sufficient to allow a robust assessment of potential effects on breeding birds.

If the project is progressed as two separate, smaller-scale developments, a single season of BBS is likely to be adequate to assess potential effects on breeding birds.

5.1.3 Other

Based on the results collected to date, no species-specific surveys are considered necessary.

5.2 Mitigation & Enhancements

5.2.1 Mitigation

Birds are subject to varying levels of legal protection. Therefore, to adhere to good practice guidelines and ensure compliance with the Wildlife and Countryside Act 1981 (as amended)⁴, avoidance and/or mitigation measures will be required.

Provisional recommendations for mitigation include:

- Any work involving vegetation clearance during the peak bird nesting season (March to September, or earlier/later if weather conditions are particularly mild) must be avoided.
- If any clearance works to nesting habitats are required during the nesting season, then pre-construction checks for nesting birds would need to be carried out by a suitably experienced ecologist no more than 48 hours prior to the works commencing.
- If any nesting birds are found to be present, an appropriate buffer zone would be implemented, within which works are excluded for the duration of the breeding

attempt. Any active nests will need to be left *in situ* until a suitably experienced ecologist confirms that birds have stopped using them.

- In the unlikely event that any birds listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended)¹⁴, are found to be nesting on Site, an ecologist will need to be contacted for further advice.

Full advice and recommendations for Site- and Development-specific mitigation can be made once further details of the Development design and the proposed construction timetable are available.

5.2.2 Enhancements

In order to increase the biodiversity value of the Development site, and to adhere to Government guidance set out in the National Planning Policy Framework 2019 (NPPF)¹⁴, a range of enhancement measures will need to be incorporated into the Development design.

These may include retention of hedgerow habitats within the Site, sympathetic landscaping works to benefit bird interests at the Site, and providing artificial nesting opportunities. However, full Site- and Development-specific recommendations for suitable enhancements can be made once further details of the Development design are available.

6 CONCLUSION

The BBS Area holds a selection of species typical of the habitats and geographic location of the Site. A total of 56 species were recorded during the BBS, including 22 species of conservation concern.

The proposed Development has the potential to adversely impact bird species through alteration of habitats that are relied upon for foraging and nesting, and some mitigation and/or enhancements will be required.

Provisional mitigation measures have been proposed to protect nesting bird interests at the Site during Construction. However, additional Site- and Development-specific measures may also be required to protect breeding birds, but are subject to review of the Development design and proposed construction timetable.

Enhancement measures to benefit bird interests at the Site may be required to ensure adherence to biodiversity net-gain policy but the types and extent of measures required will be subject to review of the Development design.

No further bird surveys are recommended at this stage; however, this is subject to review depending on the Development scale and design.

¹⁴ Gov.uk (2019) *National Planning Policy Framework* [online] Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf [Accessed 06/07/2020]

APPENDIX A – PLANNING POLICY, LEGISLATION AND SELECT GUIDANCE

European Union (Withdrawal) Act 2018²

Following the UK's withdrawal from the European Union (EU), the European Union (Withdrawal) Act 2018 enabled the transposition of applicable EU law into UK law, including The Birds Directive, which is summarised below.

The Birds Directive³

Annex I of Directive 2009/147/EC on the conservation of wild birds (known as the 'Birds Directive') lists bird species that are of conservation importance at a European level. Bird species listed on Annex I are protected from deliberate disturbance, particularly during the period of breeding and rearing young. This refers specifically to disturbance levels that would affect delivery of the objectives of the Birds Directive, which means that the impact of disturbance must not adversely affect a species' conservation status. One of the main provisions of the Directive is the identification and classification of Special Protection Areas (SPAs) for rare or vulnerable Annex I bird species, as well as for all regularly occurring migratory species.

The Wildlife and Countryside Act 1981 (as amended)⁴

The Wildlife and Countryside Act 1981 (as amended) is the primary legislation protecting animals, plants, and certain habitats in the UK, including all wild birds and their nests, eggs and chicks. Under this legislation, it is an offence to intentionally or recklessly kill, injure or take any wild bird or their eggs, or to take, damage, destroy, obstruct or otherwise interfere with the nest of any wild bird while it is in use or being built.

Additional protection of birds at or around their nests is afforded to rare breeding species in the UK, and/or species under threat of human persecution. These species are listed on Schedule 1 of the Act. Further protection to some Schedule 1 species is afforded under Schedule 1A, which protects birds from intentional or reckless harassment at any time (i.e. all year round).

Natural Environment and Rural Communities Act⁵

The Natural Environment and Rural Communities (NERC) Act 2006 places a duty on local planning authorities to have due regard for biodiversity and nature conservation during the course of their operations, and thus ensures that biodiversity is a key consideration in the planning process. Section 41 (S41) of the Act lists habitats and species which are of principal importance for the conservation of biodiversity in England.

UK Birds of Conservation Concern⁶

The UK Birds of Conservation Concern (BoCC) is a periodic national review assessing the population trends of bird species in the UK. It uses a traffic light system to indicate an increasing level of conservation concern. Species that have a declining range and/or population, or that are vulnerable to population effects due to their small population size, are Red-listed or Amber-listed, depending on the extent of the decline or vulnerability, while those which are stable, increasing, or experiencing only small declines, are Green-listed.

APPENDIX B – BIRD SPECIES NAMES AND CONSERVATION DESIGNATIONS

Table A1 list provides English vernacular and scientific names for all bird species mentioned in this report.

Nomenclature and taxonomic order are based on the BOU 'British List'⁷.

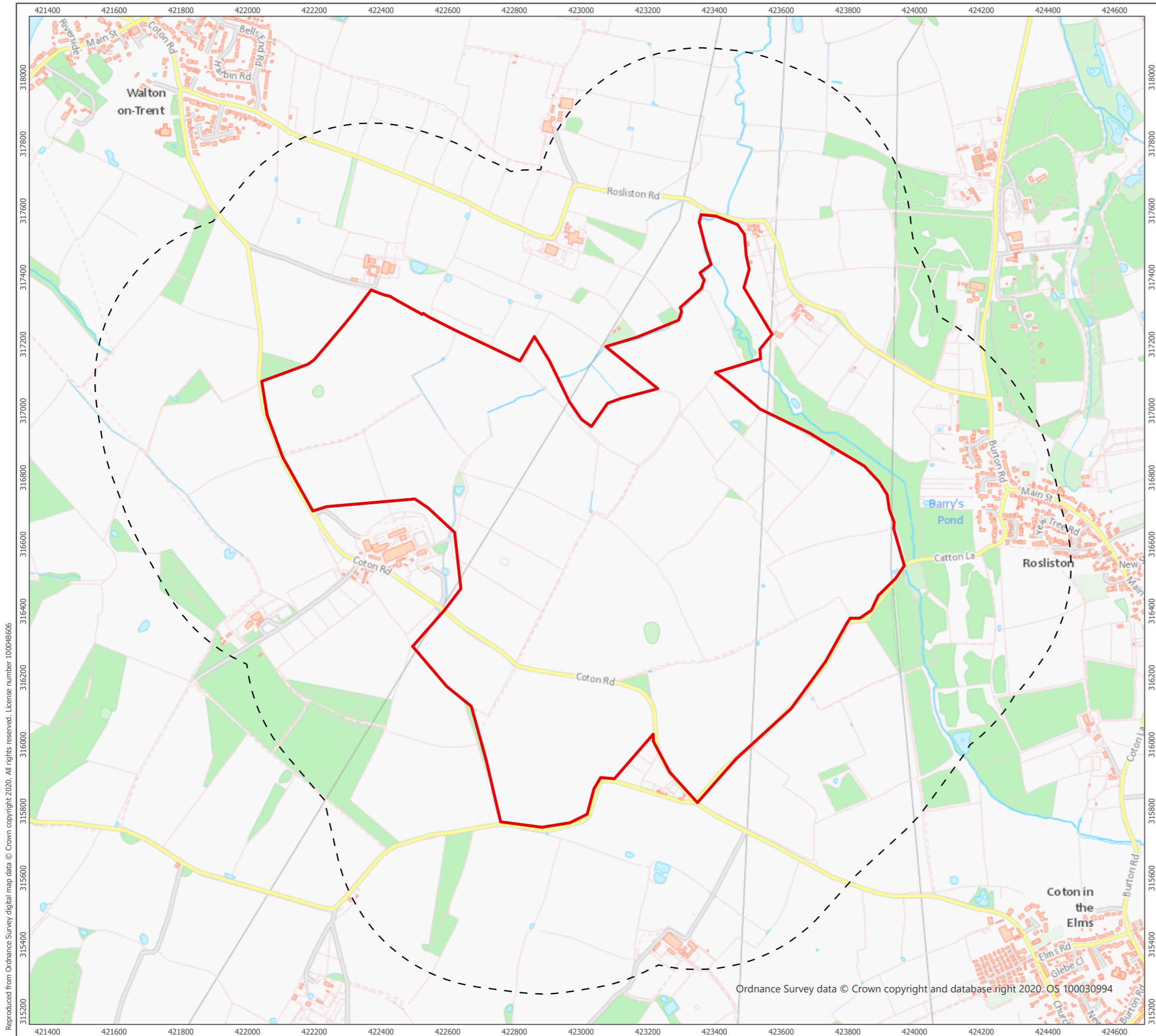
Table A1: List of English vernacular and scientific names of bird species

Species		Schedule 1/ Annex I Listings	SPI and/or BoCC Listing*
English (British) Vernacular Name	Scientific Name		
Canada goose	<i>Branta canadensis</i>		
Greylag goose	<i>Anser anser</i>		Amber
Mallard	<i>Anas platyrhynchos</i>		Amber
Red-legged partridge	<i>Alectoris rufa</i>		
Pheasant	<i>Phasianus colchicus</i>		
Grey heron	<i>Ardea cinerea</i>		
Cormorant	<i>Phalacrocorax carbo</i>		
Sparrowhawk	<i>Accipiter nisus</i>		
Buzzard	<i>Buteo buteo</i>		
Moorhen	<i>Gallinula chloropus</i>		
Lapwing	<i>Vanellus vanellus</i>		SPI, Red
Golden plover	<i>Pluvialis apricaria</i>	Annex I	
Curlew	<i>Numenius arquata</i>		SPI, Red
Black-headed gull	<i>Chroicocephalus ridibundus</i>		Amber
Herring gull	<i>Larus argentatus</i>		SPI, Red
Stock dove	<i>Columba oenas</i>		Amber
Woodpigeon	<i>Columba palumbus</i>		
Collared dove	<i>Streptopelia decaocto</i>		
Cuckoo	<i>Cuculus canorus</i>		SPI, Red
Barn owl	<i>Tyto alba</i>	Schedule 1	
Tawny owl	<i>Strix aluco</i>		Amber
Swift	<i>Apus apus</i>		Amber
Great spotted woodpecker	<i>Dendrocopos major</i>		
Kestrel	<i>Falco tinnunculus</i>		Amber

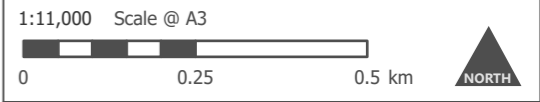
Species		Schedule 1/ Annex I Listings	SPI and/or BoCC Listing*
English (British) Vernacular Name	Scientific Name		
Jay	<i>Garrulus glandarius</i>		
Magpie	<i>Pica pica</i>		
Jackdaw	<i>Corvus monedula</i>		
Rook	<i>Corvus frugilegus</i>		
Carrion crow	<i>Corvus corone</i>		
Raven	<i>Corvus corax</i>		
Blue tit	<i>Cyanistes caeruleus</i>		
Great tit	<i>Parus major</i>		
Skylark	<i>Alauda arvensis</i>		SPI, Red
Swallow	<i>Hirundo rustica</i>		
House martin	<i>Delichon urbicum</i>		Amber
Long-tailed tit	<i>Aegithalos caudatus</i>		
Willow warbler	<i>Phylloscopus trochilus</i>		Amber
Chiffchaff	<i>Phylloscopus collybita</i>		
Blackcap	<i>Sylvia atricapilla</i>		
Garden warbler	<i>Sylvia borin</i>		
Lesser whitethroat	<i>Sylvia curruca</i>		
Whitethroat	<i>Sylvia communis</i>		
Goldcrest	<i>Regulus regulus</i>		
Wren	<i>Troglodytes troglodytes</i>		
Starling	<i>Sturnus vulgaris</i>		SPI, Red
Blackbird	<i>Turdus merula</i>		
Song thrush	<i>Turdus philomelos</i>		SPI, Red
Mistle thrush	<i>Turdus viscivorus</i>		Red
Robin	<i>Erithacus rubecula</i>		
House sparrow	<i>Passer domesticus</i>		SPI, Red
Dunnock	<i>Prunella modularis</i>		SPI, Amber

Species		Schedule 1/ Annex I Listings	SPI and/or BoCC Listing*
English (British) Vernacular Name	Scientific Name		
Yellow wagtail	<i>Motacilla flava</i>		SPI, Red
Pied wagtail	<i>Motacilla alba</i>		
Chaffinch	<i>Fringilla coelebs</i>		
Bullfinch	<i>Pyrrhula pyrrhula</i>		SPI, Amber
Greenfinch	<i>Chloris chloris</i>		
Linnet	<i>Linaria cannabina</i>		SPI, Red
Goldfinch	<i>Carduelis carduelis</i>		
Yellowhammer	<i>Emberiza citrinella</i>		SPI, Red
* Where no BoCC listing is shown, species are Green-listed.			

APPENDIX C – FIGURES



- Site Boundary
- Breeding Bird Survey (BBS)
- Area - 500 m Buffer



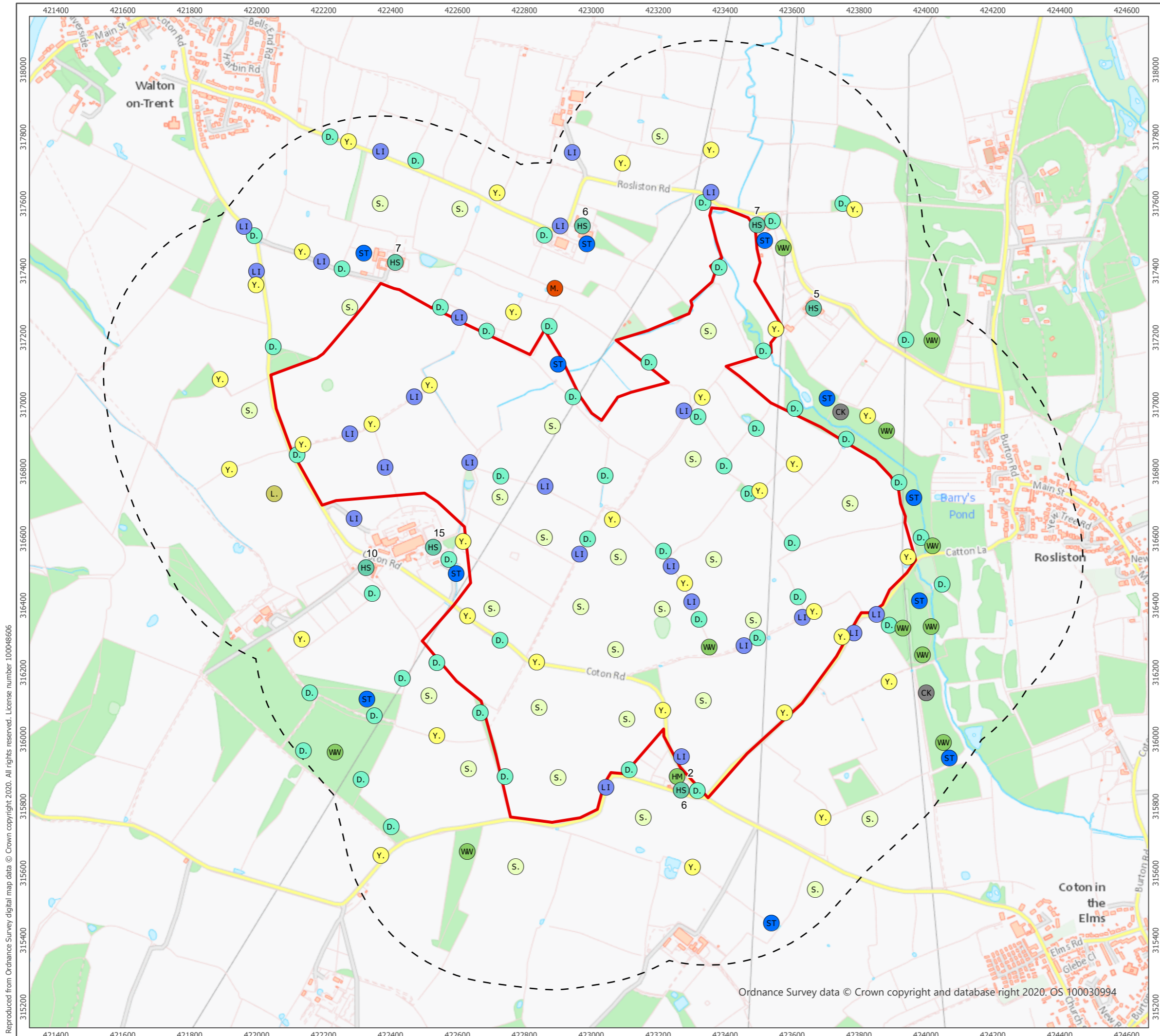
Produced By: NE	Ref: 3719-REP-004
Checked By: MS	Date: 08/07/2020

The Site
Figure 1

2020 Breeding Bird Survey Report
Oaklands Solar Farm

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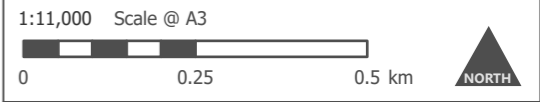
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- Site Boundary
- Breeding Bird Survey (BBS)
- Area - 500 m

- Species**
- Cuckoo
 - Dunnock
 - House Martin*
 - House Sparrow*
 - Lapwing
 - Linnet
 - Mistle Thrush
 - Skylark
 - Song Thrush
 - Willow Warbler
 - Yellowhammer

* Number of territories (semi-colonial species)



Produced By: NE	Ref: 3719-REP-005
Checked By: MS	Date: 08/07/2020

2020 BBS Survey Results
Figure 2

2020 Breeding Bird Survey Report
Oaklands Solar Farm

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APPENDIX D – FIELD SURVEY DETAILS

Table A2 provides details of survey times and weather conditions.

Table A2: Survey times and weather conditions for all Breeding Bird Surveys

Date	Observer	Start of Survey	End of Survey	Hour	Wind Speed	Wind Direction	Rain	Cloud Cover	Cloud Height	Visibility	Frost	Snow
27.04.2020	CG	06:30	16:30	1	2	NW	0-1	8	1	2	0	0
27.04.2020	CG	06:30	16:30	2	2	NW	2	8	2	2	0	0
27.04.2020	CG	06:30	16:30	3	2	NW	0	8	2	2	0	0
27.04.2020	CG	06:30	16:30	4	2	NW	0	8	2	2	0	0
27.04.2020	CG	06:30	16:30	5	2	NW	0	8	2	2	0	0
27.04.2020	CG	06:30	16:30	6	2	NW	0	8	2	2	0	0
27.04.2020	CG	06:30	16:30	7	2	NW	0	8	2	2	0	0
27.04.2020	CG	06:30	16:30	8	2	NW	0	8	2	2	0	0
27.04.2020	CG	06:30	16:30	9	2	NW	0	8	2	2	0	0
27.04.2020	CG	06:30	16:30	10	2	NW	0	8	2	2	0	0
15.05.2020	CG	05:20	14:20	1	1	N	0	0	-	2	1	0
15.05.2020	CG	05:20	14:20	2	1	N	0	0	-	2	1	0
15.05.2020	CG	05:20	14:20	3	1	N	0	1	2	2	0	0
15.05.2020	CG	05:20	14:20	4	1	N	0	2	2	2	0	0
15.05.2020	CG	05:20	14:20	5	2	N	0	1	2	2	0	0
15.05.2020	CG	05:20	14:20	6	2	N	0	2	2	2	0	0
15.05.2020	CG	05:20	14:20	7	3	NE	0	2	2	2	0	0
15.05.2020	CG	05:20	14:20	8	3	NE	0	3	2	2	0	0
15.05.2020	CG	05:20	14:20	9	3	NE	0	3	2	2	0	0
03.06.2020	CG	04:45	14:00	1	2	NNW	4	8	1	1-2	0	0
03.06.2020	CG	04:45	14:00	2	2	NNW	4	8	2	2	0	0
03.06.2020	CG	04:45	14:00	3	2	NNW	4	8	2	2	0	0
03.06.2020	CG	04:45	14:00	4	2	N	4	8	2	2	0	0
03.06.2020	CG	04:45	14:00	5	3	NNE	4	8	2	2	0	0
03.06.2020	CG	04:45	14:00	6	3	NNE	4	8	2	2	0	0
03.06.2020	CG	04:45	14:00	7	3	NE	1	8	2	2	0	0
03.06.2020	CG	04:45	14:00	8	3	NE	1	8	2	2	0	0
03.06.2020	CG	04:45	14:00	9	3	NE	1	8	2	2	0	0

Notes:

Wind speed: according to Beaufort Scale

Wind direction: according to 16-point compass

Rain: 0 = None; 1 = Drizzle/Mist; 2 = Light showers; 3 = Heavy showers; 4 = Light rain; 5 = Heavy rain

Cloud cover: in eighths of sky (oktas). *Cloud height:* 0 = <150 m; 1 = 150-500 m; 2 = >500 m

Visibility: 0 = Poor (<1 km); 1 = Moderate (1-2 km); 2 = Good (>2 km)

Frost: 0 = None; 1 = Ground frost; 2 = All day frost. *Snow:* 0 = None; 1 = On site; 2 = On high ground

Observer: C. Gomersall