

Breeding bird Survey

Survey site:

Land at Engine Lane, Grimethorpe, Barnsley, South Yorkshire S72 7BN

Client:

Enviromena Project Management UK Ltd

Report date:

30th July 2025

Project:

This report is prepared to inform a planning application with the Barnsley Metropolitan Borough Council. The proposal is described as:

The construction of a temporary solar farm providing 49.9MW (AC) output.

The survey results and recommendations contained within this report are valid for 18 months. An updated site visit may be required if the report is to be used any longer than 18 months after completion.

Executive Summary

Arbtech Consulting Limited was instructed by Enviromena to undertake a Breeding Bird Survey (BBS) at Engine Lane, Grimethorpe, Barnsley, South Yorkshire S72 7BN (hereafter referred to as “the site”). The survey was required to inform a planning application for the construction of a temporary solar farm providing 49.9MW (AC) output, to include the installation of ground-mounted solar panels together with associated works, equipment and necessary infrastructure (hereafter referred to as “the proposed development”).

The BBS has been informed by a Preliminary Ecological Appraisal, that was completed by Arbtech in 2024 and 2025. The PEA determined that due to the size of the site, along with significant areas of arable land and hedgerows, it could support an extensive range of breeding birds.

In addition to the above, previous breeding bird surveys have been undertaken at the site by Whitcher Wildlife Ltd in 2023. A total of thirty-five species were recorded over three visits, including four red-listed species, thirteen amber-listed species, fifteen green-listed species, and three introduced species. Five are listed on Section 41 of the NERC Act (List of priority habitats and species in England), and eight are listed on the Local Biodiversity Action Plan (LBAP) for Barnsley. The survey determined that the overwhelming majority of the species recorded within the site were pertained to the boundary features, including hedgerows and trees, with minimal activity recorded within the central compartments of the site, including the intensively managed arable fields and grazed fields.

From the 2025 surveys, the site was determined to be of value for a low to moderate number of breeding birds, with the site determined to be of no more than local value. The breeding assemblage recorded by the survey, are common and widespread in the UK, with some birds afforded greater conservation status. No Schedule 1 species were identified during the course of the surveys. The majority of the breeding species identified within the application boundary are associated with the hedgerows (and trees) that form the internal and external field boundaries across the site. Four Skylark territories were identified to be ground nesting within the arable fields within the site.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Enviromena Ltd to undertake a Breeding Bird Survey (BBS) at Engine Lane, Grimethorpe, Barnsley, South Yorkshire S72 7BN (hereafter referred to as “the site”). The survey was required to inform a planning application for the construction of a temporary solar farm providing 49.9MW (AC) output, to include the installation of ground-mounted solar panels together with associated works, equipment and necessary infrastructure (hereafter referred to as “the proposed development”).

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1.2 Site Location and Landscape Context

The site is located at its centre at National Grid Reference SE 40243 09215 and has an area totalling approximately 132ha split into four parcels of land comprising of worked arable fields, hedgerows, scattered trees, hard standing and scattered buildings. It is surrounded by agricultural and arable fields, scattered trees and residential developments located to the east and west.

A site location plan is provided in Appendix 2.

1.3 Scope of the Report

This report provides an assessment of the breeding bird assemblage at the site. The report provides information on possible constraints to the proposed development as a result of breeding birds and summarises the requirements for any mitigation proposals, where appropriate, to achieve planning or other statutory consent and to comply with wildlife legislation.

To achieve this, the following steps have been taken:

- Three survey visits have been undertaken between April and July to establish a baseline of breeding bird activity across the site.
- An outline of potential impacts on breeding birds has been provided, based on the proposed development.
- Recommendations for mitigation have been made, if appropriate.

2.0 Methodology

2.1 Breeding Bird Survey

The breeding bird survey was based on the standard Common Bird Census (CBC) methodology (Bibby et al. 2000). The survey area comprised the site and a surrounding 50m radius, where visible and accessible. Surveys were undertaken between April and July.

The survey was led by Gareth Hey BSc (Hons) MSc ACIEEM, Ecological Consultant. Two surveyors covered two sections of the site, with one covering the eastern section and one covering the western section.

The nearest designated site relating to birds within close proximity to the site is the Dearne Valley Wetlands SSSI, which is located 1.3km south-east and north-west. The site is of special interest for the following nationally important features:

- Breeding gadwall *Mareca strepera*, shoveler *Spatula clypeata*, garganey *Spatula querquedula*, pochard *Aythya ferina*, bittern *Botaurus stellaris*, black-headed gull *Chroicocephalus ridibundus* and willow tit *Poecile montanus kilienschmidtii*.
- Non-breeding gadwall *Mareca strepera* and shoveler *Spatula clypeata*.
- Diverse assemblages of breeding birds of Lowland damp grasslands, Lowland scrub and a mixed assemblage of Lowland open waters and their margins and Lowland fen

A fixed transect route was walked and this was reversed on alternate visits. The transect route is shown in Appendix 3. All contacts with birds, either by sight or sound, were plotted onto a site plan using standard BTO coding of each bird encountered, and to record any behaviour that could indicate wintering grounds of the species, such as regular interaction or active foraging.

The results were used to assess the status of the birds on site and assign each species one of the following categories:

- Confirmed foraging
- Confirmed winter roosting site
- Not confirmed at site, but habitats at site would support the species
- Not confirmed, habitats not suitable.

A fixed transect route was walked and this was reversed on alternate visits. All contacts with birds, either by sight or sound, were plotted onto a site plan using standard BTO coding to note the species, sex and age (where possible) of each bird encountered, and to record any behaviour, such as song, anxiety calls or nest-building, etc. that might indicate breeding activity.

The results were used to assess the status of the birds on site and assign each species one of the following categories:

- Non-breeding – Flying over site or species observed within unsuitable breeding habitat;
- Possible breeding – Species observed in suitable nesting habitat during the breeding season;

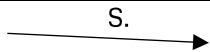




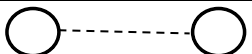



- Probable breeding – Territorial behaviour observed on at least 2 occasions, courtship and display behaviour observed, pair observed in suitable nesting habitat in breeding season, birds observed visiting probable nest site, agitated behaviour or alarm calls from adults; or
- Confirmed breeding – Used nest or eggshells discovered, distraction display/injury feigning observed, recently fledged young, adults on nest, adult carrying faecal sac or food, nest containing eggs or nest with young seen/heard.

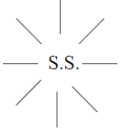
Activity observed was based on the Breeding status code as set out by the BTO- **See Appendix 4**

2.2 Mapping

During the site visits, mapping of breeding bird activity was mapped using BTO designated codes for the species. Such as Robin = R. Bird codes on the map will be accompanied by a symbol indicating either number of individuals, activity observed and notes on if juveniles were present with adults. Nest locations were also noted if identified. This information was utilised to determine the likelihood of birds utilising the site for nesting purposes, following the criteria above.

Table 1: Breeding bird survey activity mapping codes source- Bird Survey guidelines

Description	Map Code
Flying direction	
Bird in flight, then landed. In particular ground nesting	
Bird took off from ground, in particular ground nesting	
Singing Male.	
Same singing individual	
Two different singing males in close proximity	
Social call	
Alarm call	
Sex of bird	

Aggressive encounters between two birds (inter and intra species interactions)	
Additional Notes	*

2.3 Evaluation of Site

The number of bird species for which breeding was confirmed or considered probable within the red line site boundary was used to assign value to the site based on the methodology developed by Fuller (1980). This methodology uses the number of species recorded in an area to indicate its importance, based on the criteria provided in Table 1 below.

Table 2: Fuller (1980) Breeding Bird Diversity Criteria

National	Regional	County	Local
85+	84-70	69-50	49-20

2.4 Limitations

This survey follows best practice guidance to record breeding bird activity within the site. However, this information is collected at finite dates and times, and provides an indication of the conditions on site only. The use of the site by breeding birds, at all times cannot be established based on this information. Birds are highly mobile creatures and can often abandon sites and return at various times of the year, depending on conditions and food availability. Some birds are more active at different times of the year, such as a breeding bird survey in the spring will not observe or evaluate what birds could be visiting and using the site in the winter. There is potential for some birds to be missed or to go unnoticed due to the nature of breeding bird surveys and possibility of birds not vocalising and/or being present in dense vegetation.

The site experiences high levels of trespassing and on all of the survey visits, trespassers were observed leaving the site with presumed air rifles on three of the occasions. A significant number of drug paraphernalia was also present within the site, with disturbed fire pits also present in the eastern and western sections of the site. This routine disturbance of the site is likely to reduce suitability of the site for significant populations of breeding bird species, and birds with a greater degree of conservation value.

A biological records data search has not been undertaken. BRD should be obtained in order to provide a more robust assessment of the potential impacts of the proposed development. Once this information has been received, the report should be updated to provide an updated assessment.

3.0 Results and Evaluation

The results of the field survey are illustrated in Appendix 3. The weather conditions recorded at the time of each survey visit are shown in Table 2.

Table 2: Weather conditions during each survey visit

Date:	23/03/2025	17/04/2025	05/05/2025	25/05/2025	08/06/2025	06/07/2025
Sunrise/Sunset Time	06:03am	06:02am	05:24am	04:51am	04:38am	04:45am
Start/End Time	06:00am – 10:00am	06:00am – 10:00am	05:30am – 09:30am	05:00am – 09:00am	05:00am – 09:00am	05:00am – 09:00am
Temperature	9°C	13°C	15°C	16°C	15°C	17°C
Humidity	77%	74%	72%	61%	72%	67%
Cloud Cover	100%	60%	10%	100%	40%	10%
Wind	14mph	3mph	1mph	2mph	1mph	2mph
Rain	None	None	None	None	None	None

A total of 36 species were recorded within the survey area. Of these 30 species were confirmed to be breeding, probable breeders or possible breeders.

The species assemblage largely comprised common and widespread species typical of a mixed agricultural landscape in northern England, dominated by species such as Woodpigeon, House Sparrow, Starling, Robin and Blackbird. Three raptor species, Buzzard, Kestrel and Sparrowhawk were also recorded during the surveys. Of the total species assemblage, six species (Black-headed Gull, Buzzard, Goldcrest, Greylag Goose, Oystercatcher and Sparrowhawk) were not considered to be breeding as they were seen either flying over the site, or no suitable habitat was present within the site, but may be present within close proximity to the site, as is the case for Goldcrest.

No Schedule 1 bird species were recorded on site during the breeding bird surveys. The highest concentration of activity was related to the field boundary hedgerows and trees, alongside the arable field margins, along with pockets of scrub and woodland within the site. Also of note were the Skylark populations, which were present and observed to be confirmed breeding within the arable fields of the site. Overall, seven species of principal importance (all of which are listed under Barnsley Local Biodiversity Action Plan (LBAP)) were recorded within the site, with species including Dunnock, House Sparrow, Linnet, Skylark, Song Thrush, Starling and Yellowhammer. Of these, Dunnock and Skylark were confirmed to be breeding within the site, with the Dunnock utilising several areas of the hedgerows for nesting purposes, and four territories of Skylark recorded within the arable fields. Linnet, Starling and Yellowhammer were all determined to be Probably Breeding, as although no nesting behaviour was observed, the site contained suitable habitat for them to nest. Furthermore, six of the species, House Sparrow, Linnet, Skylark, Starling and Yellowhammer, are all red listed under the Bird of Conservation Concern (BoCC), with a further 16 amber listed species, also present. More activity was recorded in the western parcels, with significantly higher levels of trespassing observed in the eastern parcels, which is likely to deter use for the site by significant populations of nesting birds.

Full details are provided in Table 3.

Table 3: Summary of birds observed during BBS

Species	BTO Code	Sch 1 ¹	SPI ²	BoCC ³	LBAP ⁴	Number Recorded (Peak Count)	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Breeding Status	Activity observed
Blackbird	B.					14	Y	Y	Y		Y	Y	Confirmed breeding	ON, DD, S, I, B
Blackcap	BC					4			Y		Y		Possible breeding	H
Black-headed Gull	BH			AMBER		2			Y				Non-breeding	F
Blue Tit	BT					4	Y	Y	Y	Y	Y	Y	Confirmed breeding	ON, DD, S, I, B
Buzzard	BZ					1					Y	Y	Non-breeding	F
Carrion Crow	C.					9	Y	Y	Y	Y			Probable breeding	P
Chaffinch	CF					4	Y	Y		Y	Y		Probable breeding	T, D
Chiffchaff	CC					6		Y	Y			Y	Possible breeding	S
Collared Dove	CD					7	Y			Y			Probable breeding	P
Dunnock	D.		Y	AMBER	Y	4	Y	Y	Y	Y			Confirmed breeding	ON, DD, S, I, B
Garden Warbler	GW					1			Y		Y		Possible breeding	H

¹ A Schedule 1 species under the Wildlife and Countryside Act 1981.

² A Species of Principal importance (SPI) under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

³ Bird of Conservation Concern (BoCC), such as a red or amber listed species.

⁴ A priority species under the Barnsley Local Biodiversity Action Plan (LBAP).

Goldcrest	GC					1			Y		Y		Non-breeding	F
Goldfinch	GO					12		Y	Y	Y			Probable breeding	P, N
Great Tit	GT					8	Y		Y	Y	Y	Y	Confirmed breeding	ON, DD, S, I, B, T
Greenfinch	GF			AMBER		1					Y	Y	Possible breeding	H, S
Greylag Goose	GJ			AMBER		2	Y						Non-breeding	M, U
House Sparrow	HS		Y	RED	Y	24	Y		Y	Y	Y	Y	Possible breeding	H
Jackdaw	JD					14	Y			Y	Y		Probable breeding	P, B
Kestrel	K.			AMBER		1			Y				Possible breeding	N
Linnet	LI		Y	RED	Y	14		Y	Y	Y			Probable breeding	P
Long-tailed Tit	LT					8		Y	Y				Confirmed breeding	ON, P
Magpie	MG					12	Y	Y	Y				Probable breeding	P, B
Mallard	MA			AMBER		2		Y	Y				Possible breeding	H
Oystercatcher	OC			AMBER		2	Y	Y					Non-breeding	M, U
Pied Wagtail	PW					4		Y	Y				Possible breeding	P, I
Pheasant	PH					6			Y	Y	Y		Possible breeding	I, P
Robin	R.					16	Y	Y	Y	Y	Y	Y	Confirmed breeding	ON, DD, S, I, B, T
Skylark	S.		Y	RED	Y	8	Y	Y	Y				Confirmed breeding	ON, DD, S, I, B, T
Song Thrush	ST		Y	RED	Y	8	Y			Y			Possible breeding	S, T
Sparrowhawk	SH					1						Y	Non-breeding	F
Starling	SG		Y	RED	Y	18	Y	Y	Y	Y			Probable breeding	P

Whitethroat	WH			AMBER		4			Y	Y	Y		Probable breeding	S, D
Willow Warbler	WW			AMBER		7					Y	Y	Possible breeding	S
Woodpigeon	WP			AMBER		35	Y	Y	Y	Y	Y		Confirmed breeding	ON, FL, NE
Wren	WR			AMBER		10	Y	Y	Y	Y	Y	Y	Confirmed breeding	ON, DD, S, I, B, T
Yellowhammer	Y.		Y	RED	Y	4		Y	Y				Probable breeding	P

4.0 Conclusions, Impacts and Recommendations

Taking the field survey results into account, Table 4 presents an evaluation of the value of the site for breeding birds in relation to the proposed development

Table 4: Evaluation of the site for breeding birds

Survey Results Summary	Impact Assessment	Recommendations
<p>According to the criteria set out by Fuller (1980), the breeding bird assemblage of 30 species present within the survey indicates a value at the Local scale.</p> <p>The breeding assemblage includes 22 species of conservation significance, although these, and all other species recorded by the survey, are common and widespread in the UK.</p> <p>No Schedule 1 species were identified during the course of the surveys.</p> <p>The majority of the breeding species identified within the application boundary are associated with the hedgerows (and trees) that form the internal and external field boundaries across the site.</p> <p>Four Skylark territories were identified to be ground nesting within the arable fields within the site.</p>	<p><u>Loss of Breeding Habitat</u> The proposed development has the potential to adversely impact breeding birds within and adjacent to the study area, through disturbance of nesting birds and the loss or alteration of suitable habitat, both during the construction and operational phases of the development. In particular, given the population of Skylarks present within the arable fields, where most of the development is to take place, it is possible that in the absence of mitigation, the proposed development will result in all of the suitable Skylark nesting habitat at the site.</p> <p><u>Destruction or Damage of Active Nests</u> The clearance, pruning or damage of any vegetation that are scheduled during the core British bird breeding season (March-August inclusive) would risk the unlawful destruction or damage of active nests.</p> <p><u>Disturbance of Schedule 1 Species</u> Although the site provide value for some Schedule 1 species, including foraging Barn Owl, there are limited opportunities within the site for nesting of these species.</p> <p><u>Lighting</u> The proposed development will include the use of lighting which could affect migrating bird routes. The majority of birds migrate</p>	<p>Clearance works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained and work in that area cannot continue until the young have fledged.</p> <p>It is recommended that areas of the site are set aside for Skylark mitigation areas. Given that Skylarks were observed throughout the majority of the site, any one of the fields could be chosen for this. A detailed Skylark management and monitoring plan should be produced for the proposals that outlines such requirements.</p> <p>The planting of a species rich wildflower mix in areas throughout the site which are beneficial as pollinators and seed producers would provide opportunities for a variety of breeding birds, post development. Such species would increase the amount and diversity of insect prey during the breeding season, providing an increased protein source. Solar panels also provide suitable structures for cover and perching for many bird species, which is likely to increase the assemblage of birds on the sites during the operational phase of the proposed development. Within the hedgerow boundaries, it is recommended that edge habitats are allowed to develop comprising taller grasses which will</p>

	<p>under the cover of darkness and lighting can cause loss and confusion, especially peak seasonal times.</p>	<p>benefit other species of ground nesting birds (as well as other wildlife). Grassland areas should be over sown with suitable seed mixes and subjected to a mechanised cut in autumn (where intended).</p> <p>To support a diverse range of breeding bird species (as identified during the surveys), the hedgerows should be managed to maintain structural variety and ecological richness. To maximise their value for breeding birds, hedgerows should be managed to maintain a dense, structurally diverse form with a mix of native woody species and occasional standard trees. The hedgerows should have a layered structure by allowing the base to remain thick and unshaded, supporting ground-nesting and low-cover species. Hedgerows should be cut on a rotational basis every 2-3 years, ideally in late winter (January-February) to avoid disturbing nesting birds and to allow flowering and fruiting, which provide essential invertebrates, berries, and seeds. Trimming of all hedgerows should be avoided within a single year; and they should be staggered across different sections to ensure year-round habitat availability. Features such as bramble, ivy, should be retained, which offer excellent cover and food resources. Where feasible, the hedgerows should be allowed to grow out or be laid in traditional styles to rejuvenate aging shrubs. Planting of any gaps within hedgerows should also be undertaken that would allow linkage throughout all of the site. In addition to the above, this would allow hedgerows within the site to connect to other semi-natural habitats such as woodlands, field margins, and grasslands, which supports bird movement and wider biodiversity across the landscape.</p>
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		<p>Nest boxes will be provided to increase the opportunities for breeding birds. These will be placed in strategic locations around the site and targeted toward species of conservation concern to increase their conservation value. All boxes will be tree-mounted, and (excluding the barn owl box) will be made of woodcrete, or similar material, to ensure durability. As a minimum, nest boxes will include:</p> <ul style="list-style-type: none"> • Two tree-mounted barn owl boxes, on retained trees within the site boundaries; • Fourty generalist bird boxes will be placed on suitable retained trees or posts throughout the site • Ten starling boxes will be placed in suitable locations throughout the site; and • Ten further boxes for hole nesting species (five with 28 mm hole, five with 32 mm hole) will be scattered in suitable locations throughout the site. <p>Approximate locations and types of nest boxes should be detailed in an Ecological Enhancement and Management Plan for the site, and siting of individual boxes will be directed by an ECoW. Siting of barn owl nest boxes will be directed on-site by an ECoW.</p> <p>A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures:</p> <ul style="list-style-type: none"> • Use narrow spectrum light sources to lower the range of species affected by lighting. • Use light sources that emit minimal ultra-violet light. • Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are
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		<p>required in order to manage the blue shortwave length content they should be of a warm / neutral colour temperature <4,200 kelvin.</p> <ul style="list-style-type: none"> • Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal. • Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only. • External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on. • Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.
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5.0 Bibliography

- Bibby, C. et al (2000) Bird Census Techniques (2nd Edition). Academic Press.
- Bird Survey & Assessment Steering Group. (2022). Bird Survey Guidelines for assessing ecological impacts, v.1.0.0.
- British Trust for Ornithology Breeding Evidence (2012). www.bto.org/volunteersurveys/birdatlas/taking-part/breeding-evidence
- Fergusson-Lees, J., Castell, R. & Leech, D. (2011) A Field Guide to Monitoring Nests. British Trust for Ornithology.
- Fuller, R.J. (1980), A Method for Assessing the Ornithological Interest of Sites for Conservation. Biological Conservation 17: 229-239
- Gilbert, G., Gibbons, D.W., and Evans, J. (1998) Bird Monitoring Methods: A Manual of Techniques for UK Key Species. The Royal Society for the protection of Birds, Sandy, Bedfordshire, England.
- Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 723-747.

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Status	Issue	Name	Date
Draft	0.1	Gareth Hey BSc (Hons) MSc ACIEEM, Ecological Consultant	04/08/2025
Proof	0.2	Annabel Sharpe BSc (Hons), Consultant Ecologist CL17 and CL18 bat licence	06/08/2025
Proof	0.3	Mel Reid BSc (Hons) MRes AMRSB, Principal Ecologist CL17 and CL18 bat licence	06/08/2025
Final	1.0	Gareth Hey BSc (Hons) MSc ACIEEM, Ecological Consultant	06/08/2025

Appendix 2: Site Location Plan



Appendix 3: Breeding Bird Survey Plan





Appendix 4- BTO Breeding Status codes

Non-breeding	
F	Flying over
M	Species observed but suspected still on migration
U	Species observed but suspected to be Summering non-breeder
Possible Breeder	
H	Species observed in breeding season in suitable habitat
S	Singing male present (or breeding calls heard) in breeding season in suitable breeding habitats
Probable Breeding	
P	Pair observed in suitable nesting habitat in breeding season
T	Permanent territory presumed through registration of territorial behaviour (song etc) on at least two different days a week or more part at the same place or many individuals in one day
D	Courtship and Display (judged to be in or near potential breeding habitats)
N	Visiting probable nest sites
I	Agitated behaviour or anxiety calls from adults suggesting probably nest or young nearby
B	Nest building observed or excavating nest-holes
Confirmed breeding	
DD	Distraction-display or injury feigning to draw attention away from nest
UN	Used nest or eggshells found (occupied or laid within period of survey)
FL	Recently fledged young (nidicolous species) or downy young (nidifugous species)
ON	Adults entering or leaving nest sites in circumstances indicating occupied nests (including high nests, or nest holes, the contents of which cannot be observed from the ground) or adults seen incubating nests
FF	Adults carrying food or faecal sacs
NE	Nest containing eggs
NY	Nest with young seen or heard.

Appendix 5: Legislation and Planning Policy

LEGAL PROTECTION

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

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

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

This affords them protection against:

- Intentional **or reckless** disturbance while it is building a nest or is in, on or near a nest containing eggs or young
- Intentional **or reckless** disturbance of dependent young of such a bird at on or near the nests.

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Industry Guidelines and Standards

This report has been written with due consideration to:

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

Proportionality

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

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

(BS 42020, 2013)

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

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

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