Barn Owl Scoping Assessment & Report

Land at Chidswell, Dewsbury

Report reference: R-3280-02

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Report Reference:	R-3280-02
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The information which we have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions. This report does not constitute legal advice.

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Introduction

1. Site development and fragmentation or loss of habitat are key issues with regard to impacts upon Barn Owl *Tyto alba* in Britain and surveys are required to identify breeding, roosting and foraging sites where developments are proposed.

2. The scoping survey visit to the site at Chidswell, Dewsbury was undertaken on 26th March 2018. Weather conditions were good with clear, sunny, bright conditions and a light breeze, cool early (5°C) becoming milder by midday (11°C).

3. The site within the red-line boundary (80-120m altitude) comprises large open areas of arable farmland and some grassland, with larger field sizes in the southern section east of Chidswell, and smaller fields in the northern section east of the A653 Leeds Road. Field boundaries include fence-lines and few, species poor hedgerows within the southern section, with a line of mature trees and scrub along the watercourse on the south-east boundary.

4. Hedgerows of greater structure, with tree-lines including mature trees and scrub, are present along the two watercourses in the northern section of the site. Two broad-leaved woodlands border the site, Dum Wood in the north-east and Dogloitch Wood in the south-east, with arable farmland continuing to the east outside the red-line boundary towards Hey Beck.

5. The site is bordered by residential housing along the western and northern boundaries, with further open arable farmland to the south. Outside the red-line boundary, Chidswell Farm and Windsor Farm border the site in the south-west and Lees House Farm in the west. There is one small brick-built structure, an old generator building, c.300m north-east of Chidswell Farm.

Methodology

6. Survey was undertaken by David Pearce, an experienced consultant ornithologist with over 14 years professional experience undertaking ornithological research, bird surveys and monitoring, site and species evaluation and providing advice on mitigation and habitat enhancement for birds throughout the United Kingdom.

7. An intensive walkover survey of the site was made to systematically search, map and assess potential Barn Owl breeding and roosting sites within the red-line boundary. The walkover was undertaken while trees were still leafless to enable trees with suspected cavities to be located, assessed and checked.

8. Trees with a trunk diameter less than 45cm were disregarded as these are unsuitable, being too small for access by this species. The site was covered from access tracks, public footpaths and field margins. Farm buildings were also assessed for potential to

support breeding or roosting by Barn Owl. In addition, trees within the western edge of Dum Wood and Dogloitch Wood adjacent to the site, were also assessed.

9. Survey methodology followed that outlined by Gilbert, Gibbons & Evans (1998), Hardey et al. (2009), Shawyer (2011) and the Barn Owl Trust (2012). Whilst undertaking the scoping survey, bird species present within the site red-line boundary were also listed, these are presented in Table 1 and include current conservation status. A key is to conservation status of birds recorded is presented in Table 2.

Background Information

10. The Barn Owl is protected by law under Schedule 1 of the Wildlife and Countryside Act (1981) as amended, which provides special protection at all times. As such, the Barn Owl is one of a number of protected species in the United Kingdom whose presence must be given high nature conservation priority and special legal protection when a potential development is being considered (Shawyer 2011).

11. Barn Owl was moved from the amber list to the green list in the fourth major review of the status of birds occurring in the United Kingdom, Channel Islands and the Isle of Man – Birds of Conservation Concern 4 (BoCC4) (Eaton et al. 2015). However, this does not denote any change in the U.K. population level and the species remains on the list of European Birds of Conservation Concern. Numbers declined markedly during the twentieth century and the current population estimate is of 4,000 pairs in the United Kingdom (Musgrove et al. 2013). Declines are attributed to a combination of reasons, including, a reduction in food supply (mainly voles, shrews, mice and rats) through loss of unimproved and rough grassland, loss of hedgerows, habitat loss due to urbanisation and development and the loss of nest and roost sites and also mortality from road casualties (Barn Owl Trust 2012).

12. Barn Owls are found in a variety of open farmland habitats in Britain, with over 90% of breeding sites below 150m altitude. They may defend the immediate area around the nest (the nesting territory) and during the breeding season forage up to a kilometre from the nest: an area of up to 350 hectares. Outside the breeding season birds can forage up to three kilometres, occasionally five kilometres, from their nest site, which equates to a home range size of up to 5,000 hectares. Barn Owls nest in large holes, predominantly those found in the interiors of buildings, large tree cavities – most often in old trees, bale stacks and rock fissures, as well as nest boxes, with dry, dark nest sites preferred (Hardey et al. 2009). They show a very high degree of nest site fidelity and a similar degree of fidelity to their mates, for as long as both survive, the typical lifespan of birds that survive their first year being four years (Barn Owl Trust 2012).

13. The breeding cycle is especially long, attributed mainly to the prolonged fledging period of young which can take about 67 days (9-10 weeks). When prey is freely

available and the climate relatively mild, courtship normally begins in February and March, eggs are laid in April or early May and following incubation the first chicks usually hatch during the first half of June, which in most years coincides with rising vole numbers. By mid- July young are half grown and most fledge in mid to late August when Field Vole Microtus agrestis numbers are reaching their seasonal peak. By mid- to late December most young are independent of their parents and disperse, firstly to sites nearby and then further afield. Barn Owls will often breed in their first year at between ten and 11 months of age, although males will sometimes not breed until their second year (Shawyer 1998).

Records

14. Results of a Preliminary Ecological Appraisal (PEA) produced by White Young Green (WYG) in December 2016, and including an ecological record search produced by the West Yorkshire Ecology Service for land at Chidswell Farm, were supplied prior to the Barn Owl scoping survey visit on 26th March 2018.

15. The record search did not include any Barn Owl records within two kilometres of the site.

16. During the initial Phase 1 Survey (WYG June 2011) numerous bird species were recorded on site but no Barn Owls were recorded.

17. The farmer at Chidswell Farm stated that he had not observed Barn Owl around the farm buildings or in close proximity to the farm, but was aware of Barn Owl being recorded on another farm landholding (unspecified) towards Ardsley Reservoir c.2-3km to the north-east.

Results

18. The site within the red-line boundary comprises mainly arable farmland with relatively poor field margins, hedgerows which vary in density and structure, some mature trees and no substantial areas of rough grassland. With regard to Barn Owl this type of habitat is often deficient in prey, lacks suitable nesting and roosting sites and consequently supports a very low population density or absence of this species.

19. Assessment for potential Barn Owl breeding and roosting sites throughout the site found no trees with suitable cavities along field boundaries or within the edges of Dum Wood and Dogloitch Wood for this species. Although mature trees, including Oak *Quercus spp.,* are present on site, many are less than 45cm in diameter with no cavities, whilst larger trees with cavities evident were found to be unsuitable for Barn Owl as the cavities or fissures were too small.

20. There is one small brick-built structure (flat-roofed old generator building) within 300m of Chidswell Farm, but this has no visible holes within the exterior brickwork for access and is unsuitable for use by Barn Owl, either for roosting or breeding.

21. Farm buildings at Chidswell Farm and Windsor Farm, include both new pre-fabricated buildings mainly to house stock and also some old stone storage buildings. The buildings were assessed and found to be unsuitable for roosting or breeding by Barn Owl.

22. At Lees House Farm, north of Chidswell, the large stone building facing the site appears to be in the process of renovation/conversion and is unsuitable for breeding or roosting by Barn Owl.

23. No Barn Owl boxes were found to be present within the farm areas (outside the red-line boundary) or within the site red-line boundary. The presence of boxes often indicates that this species has been recorded locally or bred previously, with boxes erected to encourage this species where natural nest-sites such as tree cavities are lacking and where suitable foraging opportunities are present.

Evaluation

24. Overall, the scoping survey visit to assess potential Barn Owl breeding and roosting sites within the red-line boundary, and within the farms located in the south-west of the site (outside the red-line boundary) found that the Chidswell site is of very low potential to support breeding or roosting by this species.

25. This is informed by several factors in combination, including the lack of recent records of Barn Owl locally, the lack of suitable natural nesting sites, lack of Barn Owl boxes and also sub-optimal foraging opportunities within the red-line site boundary.

26. Given these factors, and the relative foraging distance during the breeding season for Barn Owl (in the region of one kilometre from the nest site), it is not considered necessary to undertake further surveys on site during spring or summer 2018 for this species.

Other Bird Species Recorded - Barn Owl Scoping Survey (26th March 2018)

Table1. List of Bird Species Recorded & Conservation Status

	Chidswell, Dewsbury Barn Owl Scoping Visit 26/03/18 Bird Species Systematic Order follows British Ornithologists Union (BOU 2018)	BTO Species Code	Schedule 1 Species	Rare Breeding Birds	UK BAP Species	European Red List	Global Red List	Annex 1 Species	Scientific Name
1	**Grey Partridge**	P.			UK				*Perdix perdix*
2	**Lapwing**	L.			UK	VU	NT		*Vanellus vanellus*
3	**Skylark**	S.			UK				*Alauda arvensis*
4	**Song Thrush**	ST			UK				*Turdus philomelos*
5	**Mistle Thrush**	M.							*Turdus viscivorus*
6	**House Sparrow**	HS			UK				*Passer domesticus*
7	**Linnet**	LI			UK				*Linaria cannabina*
8	**Yellowhammer**	Y.			UK				*Emberiza citrinella*
9	**Mallard**	MA							*Anas platyrhynchos*
10	**Lesser Black-backed Gull**	LB							*Larus fuscus*
11	**Kestrel**	K.							*Falco tinnunculus*
12	**Dunnock**	D.			UK				*Prunella modularis*
13	**Meadow Pipit**	MP				NT	NT		*Anthus pratensis*
14	**Buzzard**	BZ							*Buteo buteo*
15	**Golden Plover**	GP						A1	*Pluvialis apricaria*
16	**Woodpigeon**	WP							*Columba palumbus*
17	**Collared Dove**	CD							*Streptopelia decaocto*
18	**Great Spotted Woodpecker**	GS							*Dendrocopos major*
19	**Jay**	J.							*Garrulus glandarius*
20	**Magpie**	MG							*Pica pica*
21	**Jackdaw**	JD							*Coloeus monedula*
22	**Carrion Crow**	C.							*Corvus corone*
23	**Blue Tit**	BT							*Cyanistes caeruleus*
24	**Great Tit**	GT							*Parus major*
25	**Long-tailed Tit**	LT							*Aegithalos caudatus*
26	**Wren**	WR							*Troglodytes troglodytes*
27	**Nuthatch**	NH							*Sitta europaea*
28	**Blackbird**	B.							*Turdus merula*
29	**Robin**	R.							*Erithacus rubecula*
30	**Chaffinch**	CH							*Fringilla coelebs*
31	**Goldfinch**	GO							*Carduelis carduelis*
32	**Pheasant**	PH							*Phasianus colchicus*

Table 2. Key to Conservation Status of Bird Species Recorded on the Barn Owl Scoping Survey

BoCC4 Red Listed Species of Conservation Concern
BoCC4 Amber Listed Species of Conservation Concern
BoCC4 Green Listed Species (not currently considered of conservation concern)
Species Not Assessed by BoCC4
Protected Species Listed on Schedule 1 of the Wildlife & Countryside Act 1981 (as amended)
Species considered by the Rare Breeding Birds Panel (RBBP) (UK) - R = Regular Breeding Birds, O = Occasional Breeding Birds, C = Colonising Species, P = Potential Breeding Birds
UK Biodiversity Action Plan (UK BAP) Priority Species in England (UK)
International Union for Conservation of Nature (IUCN) European Red List (2015) VU = Vulnerable (Globally Threatened), NT = Near Threatened, (all other species = Least Concern)
IUCN Global Red List VU = Vulnerable (Globally Threatened), NT = Near Threatened, (all other species = Least Concern)
Species Listed in Annex 1 of the European Union (EU) Wild Birds Directive 2009 (A1)

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Appendix 1

United Kingdom Conservation Status of Birds

The fourth major review of the status of birds occurring in the United Kingdom, Channel Islands and the Isle of Man – Birds of Conservation Concern 4 (BoCC4) (Eaton *et al.* 2015), presents lists of conservation concern based on assessments using objective listing criteria and most recent data. The listing criteria assess global conservation status, historical population decline, recent population decline (numbers and geographical range), European conservation status, rarity, localised distribution, and international importance of populations.

Lists are denoted Red, Amber and Green in a simple 'traffic light' system to provide a single, easily understood measure for each species to convey concern and hence to help set priorities for conservation action. Species are assigned to each list depending upon the scale of population decline and concern which includes breeding and non-breeding populations.

- Red list criteria – Severe population decline (> 50%) over 25 years or longer term.
- Amber list criteria – Moderate population decline (> 25% but < 50%) over 25 years or longer term.
- Green list criteria – Species not currently considered of conservation concern.

The review concerns native bird species only and not those introduced to the United Kingdom by humans, whether intentionally or accidentally. Populations of non-native bird species are not considered of conservation value, indeed introduced species can be harmful to the natural environment (Eaton *et al.* 2015). These species are therefore not assessed for conservation attention and termed 'not assessed'.

Summary of Relevant Legislation with Regard to Birds

The primary legislation affecting wild birds in England and Wales is the Wildlife & Countryside Act (1981) as amended. The basic principle of this act is that all wild birds, their nests, and eggs are protected by law and some rare species are afforded additional protection from disturbance during the breeding season (Schedule 1.). The term wild bird is defined as any bird of a species which is resident in, or a visitor to, the European territory of any Member State, in a wild state. Game birds are not included in this definition (except in certain sections of the Act) but are covered by the Game Acts which give protection in the close season.

The Wildlife & Countryside Act (1981) states that 'it is an offence, with certain exceptions, to:

1. intentionally kill, injure or take any wild bird.
2. intentionally take, damage or destroy the nest of any wild bird while it is in use or being built.
3. intentionally take or destroy the egg of any wild bird.
4. have in one's possession or control any wild bird (dead or alive), part of a wild bird or egg of a wild bird which has been taken in contravention of the Act, the Protection of Birds Act 1958 or the law of any EU Member State (which implements the EU Birds Directive 1979).

5. intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building or is in, on or near a nest with eggs or young; or disturb the dependant young of such a bird.
6. have in one's possession or control any birds of a species listed on Schedule 4 of the Act, unless registered and ringed in accordance with the Secretary of State's regulations.

Rare Breeding Birds in the United Kingdom

The U.K. Rare Breeding Bird Panel (RBBP) (www.rbbp.org.uk) collates data on over 160 species of rare breeding birds and scarcer non-native breeding species, and ensures data are archived properly and are used for conservation. This informs understanding of the status, distribution and population trends of the rarest breeding birds, too rare to monitor in any other way, and also species introduced to the U.K. Archived records form the definitive historical record of rare breeding birds in the U.K. Breeding species are categorised as – regular breeder, occasional breeder, colonising and potential breeder.

United Kingdom Biodiversity Action Plan Bird (UK BAP) Species

United Kingdom Biodiversity Action Plan (U.K. BAP) Bird Species (jncc.defra.gov.uk/uk bap priority bird species) are those identified by the Joint Nature Conservation Committee (JNCC) as being the most threatened and requiring conservation action under the U.K. Biodiversity Action Plan and included on a list of priority bird species, initially created between 1995 and 1999, and subsequently updated in response to the Species and Habitats Review Report published in 2007. Original species on the U.K. BAP list (1995-1999) have a Species Action Plan (SAP) which provides details of relevant conservation information and action. Following devolution, the U.K. BAP has recently (July 2012) been succeeded by the U.K. Post-2010 Biodiversity Framework which is focused at a country-level (England, Wales, Scotland & Northern Ireland) rather than at a U.K. level, with the list of priority bird species remaining an important reference source for conservation of individual bird species and also for conservation of bird biodiversity within a specified area or site. U.K. BAP species are identified in order to guide decision-makers, such as local planning authorities and regional authorities, in their duty to have regard to the conservation of bird biodiversity.

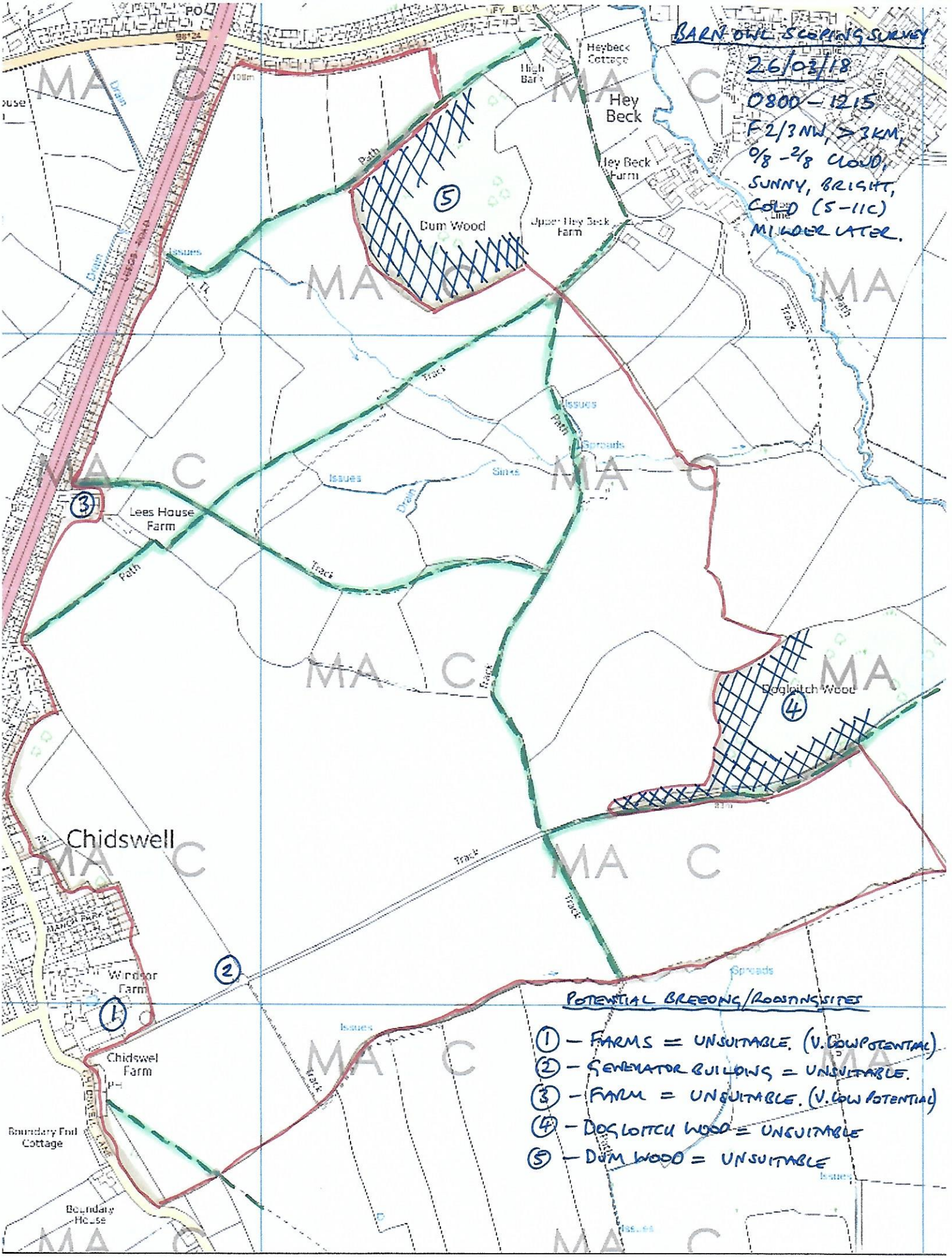
IUCN Red List Status (European Red List & Global Red List)

Birdlife International (the official International Union for Conservation of Nature (IUCN) Red List authority for birds) determines the global conservation status of birds (www.iucn.org/theme/species/birds). The IUCN red list is used by government agencies, wildlife departments, conservation-related non-governmental organisations (NGOs), natural resource planners, educational organisations, students, and the business community. It is crucial to identify bird species requiring targeted recovery efforts, but also for focusing on conservation to identify key sites and habitats that need conserving.

EU Biodiversity Legislation

Additional protection for birds is also provided to species listed within the European Union (EU) Wild Birds Directive 2009/147/EC (ec.europa.eu/environment/nature/legislation/birdsdirective & jncc.defra.gov.uk). This imposes strict legal obligations on EU member states to maintain

populations of naturally occurring wild birds at levels corresponding to ecological requirements and to preserve a sufficient diversity and areas of habitats for their conservation. Bird species mentioned in Annex I (194 species and sub-species (races)) are particularly threatened and form the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.



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