



Harworth Group

Houghton Main Colliery

Breeding Bird Report

September 2021

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1.0 NON-TECHNICAL SUMMARY

- 1.1 FPCR were commissioned by The Harworth Group to carry out a breeding bird survey at a proposed development site at Little Houghton, South Yorkshire. Proposals include employment development comprising five units, with associated parking and access infrastructure.
- 1.2 The survey was undertaken between May and June 2021. A total of 24 bird species were recorded during the survey, of which seven were considered 'notable' species. Four species were confirmed as breeding within the survey area, 10 were considered probable breeders and the remaining ten were considered possible or non-breeders.
- 1.3 The breeding bird assemblages making use of the site were typical of the habitats present, comprising mainly common and widespread species. One uncommon species, willow tit, was recorded and therefore the woodland assemblage was considered to be of Local importance.
- 1.4 Four individual species within the survey area (song thrush, willow warbler, cuckoo and willow tit) were considered of Local conservation importance based on their conservation status and abundance on site. The remaining species recorded were considered of Site conservation importance.
- 1.5 The current development proposals will lead to a local adverse impact on the woodland specialists recorded, including song thrush, cuckoo, willow warbler and willow tit since the majority of this habitat will be lost. To provide limited mitigation for woodland birds, particularly willow tit, the provision of a connective corridor is important as well as wet woodland planting and the creation of standing dead wood nesting opportunities.
- 1.6 Mitigation measures are recommended to minimise disturbance impacts from construction operations; any vegetation clearance will be undertaken outside the bird nesting season (March to August, inclusive). If this is not possible, an ecologist should make a check of any suitable breeding habitat prior to its clearance, with suitable stand-offs (as determined by the ecologist) retained around any active nests until dependant young have fledged.
- 1.7 A range of enhancement opportunities have been suggested based on the habitats and bird species recorded in order to achieve biodiversity gains. These include sensitive planting schemes and the provision of a range of nest boxes.

2.0 INTRODUCTION

- 2.1 FPCR Environment and Design Ltd. were commissioned by The Harworth Group to undertake a Breeding Bird Survey within land situated north of Little Houghton, South Yorkshire (central OS grid reference SE 420 058), hereafter referred to as 'the site'. This report should be read in conjunction with the Ecological Appraisal¹ for the site which includes the results of an Extended Phase 1 Habitat Survey.

Site Location and Context

- 2.2 The site extends to 14 acres (5.6ha) and is located to the north of Little Houghton and approximately 5.5km east of the centre of Barnsley. It comprises a single compartment of land, part of the former Houghton Main Colliery, with a mosaic of habitats largely comprising established broadleaved woodland, scrub and grassland, with a drainage ditch also extant.
- 2.3 To the immediate west, the boundary is formed by the A6195, Park Spring Road, beyond which lies largely farmed habitats through which the River Dearne flows. Immediately to the east, is further woodland, with farmland and a golf course beyond this, also with wooded areas. Woodlands also extends to the south and north, where the built habitats associated with existing distribution warehouses are also present. An informal pathway bisects the site north-south and a lane forms the southern boundary.

Site Proposals

- 2.4 The site is proposed for employment development comprising five units, with associated parking and access infrastructure, with a mix of retained and created habitats surrounding the built areas. The main access will be formed along the western boundary off the A6195, with allowance for an altered bus turning head in the south and re-routed public path to this through habitats to the east from the north.

Survey Objectives

- 2.5 The Breeding Bird Survey was carried out between May and June 2021. The objectives of the survey were to:
- Identify the presence of any designated nature conservation sites that support notable breeding bird assemblages within or in the vicinity of the site.
 - Identify the presence, species and distribution of breeding birds within the site.
 - Evaluate the conservation importance of habitats within the Site to local bird populations and identify any areas of ornithological interest.
 - Make recommendations to minimise the potential impact of development and to consider opportunities for additional mitigation, compensation and enhancement where relevant.

¹ FPCR Environment and Design Ltd. 2021. *Houghton Main Colliery, South Yorkshire. Breeding Bird Report*

3.0 LEGISLATION & STATUS

Legislation

- 3.1 The Wildlife and Countryside Act 1981 (as amended)² (WCA) is the principal legislation affording protection to UK wild birds. Under this legislation all birds, their nests and eggs are protected by law and it is an offence, with certain exceptions, to recklessly or intentionally:
- Kill, injure or take any wild bird;
 - Take, damage or destroy the nest of any wild bird while in use or being built; or
 - Take or destroy the egg of any wild bird.
- 3.2 Additional protection is afforded to species listed on Schedule 1 of the WCA, whereby intentional disturbance whilst building or occupying a nest or disturbance of dependent young is considered an offence.
- 3.3 The Natural Environment and Rural Communities (NERC) Act 2006 strengthens the WCA further through the protection of the nests of certain birds listed on Schedule Z1a, even when they are not in use. The NERC Act also offers additional protection to birds released into the wild as part of a repopulation programme.
- 3.4 The Site falls within an area covered by the Barnsley Biodiversity Action Plan (BAP)³ which identified a number of targets for UK priority species that occur within this area. Included within the plan are nine bird species with individual action plans: grey partridge *Perdix perdix*, bittern *Botaurus stellaris*, kestrel *Falco tinnunculus*, little ringed plover *Charadrius dubius*, lapwing *Vanellus vanellus*, barn owl *Tyto alba*, skylark *Alauda arvensis*, tree sparrow *Passer montanus* and twite *Linaria flavirostris*.

Status

- 3.5 In addition to statutory protection, some bird species are classified according to their conservation status, such as their inclusion on the Red and Amber lists of Birds of Conservation Concern (BoCC) in the UK⁵:
- 3.6 Red list (high conservation concern) meet at least one of the following criteria:
- They are globally threatened according to IUCN criteria;
 - Their population has declined rapidly (50% or more) in recent years; and
 - They that have declined historically and not shown a substantial recent recovery.
- 3.7 Amber list (medium conservation concern) species are those:
- They have an unfavourable conservation status in Europe;
 - Their population or range has declined moderately (between 25% and 49%) in recent years;

² Wildlife and Countryside Act 1981 (as amended). London:HMSO. [Online]. Available at: <http://www.legislation.gov.uk/ukpga/1981/69> [Accessed 07/07/2021]

³ Barnsley Biodiversity Trust, 2009. Barnsley Biodiversity Action Plan. [online] Barnsley Biodiversity Trust. Available at <http://www.barnsleybiodiversity.org.uk/Barnsley%20BAP%202009.pdf> (Accessed 21st February 2020).

⁵ Eaton, M.A., Aebischer, N., Brown, A., Hearn, R., Lock, L., Musgrove, A., Noble, D., Stroud, D. and Gregory, R.D. (2015). 'Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man'. *British Birds* **108** pp.708-746.

- Their population has declined historically but made a substantial recent recovery;
- They are rare breeders; and
- They have internationally important or localised populations.

3.8 Green list (low conservation concern) species fulfil none of the above criteria.

4.0 METHODOLOGY

Desk Study

- 4.1 In order to compile existing baseline ornithological information, the following statutory and non-statutory organisations were consulted for data regarding designated sites for which birds are a designating feature, and protected/notable bird records:
- Natural England via the Multi Agency Geographic Information for the Countryside (MAGIC) website⁶.
 - Barnsley Biological Records Centre (BBRC)
 - Yorkshire Ecological Data Network
- 4.2 The geographical extent of the search area for biodiversity information was related to the significance of sites and species and potential zones of influence which might arise from development within the Site, as follows:
- 5km around the Site boundary for sites of International Importance (e.g. Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar sites);
 - 2km around the Site boundary for statutory sites of National or Regional Importance (e.g. Sites of Special Scientific Interest (SSSIs)) and protected or otherwise notable species records within the last 20 years; and
 - 1km around the Site for non-statutory designated sites of County Importance (e.g. Sites of Importance for Nature Conservation (SINCs)/Local Wildlife Sites (LWSs)).

Field Survey

- 4.3 The methodology employed was broadly based on territory mapping⁷ used for the British Trust for Ornithology (BTO) Common Bird Census (CBC). Standard BTO species codes and symbols for bird activities were used to identify birds and denote activity, sex and age where appropriate. Birds were considered to be holding a territory and therefore likely to be utilising the site for breeding activities if they were displaying breeding behaviour, such as: singing, nest building, food carrying or territorial defence. If birds did not display such behaviour, e.g. they were only recorded flying over the site, they were considered non breeders. Breeding evidence used in this report follows EOAC guidelines 1979⁸, as shown in Appendix A.
- 4.4 To provide a reasonable level of accuracy for determining the population status of the breeding birds on the site, two surveys were undertaken between dawn and 11.00hrs during May and June 2021. A route was mapped out prior to the surveys being undertaken, paying particular attention to any linear features, such as hedgerows and watercourses, and other features such as ponds and scrub. Bird surveys were not undertaken in unfavourable conditions, such as heavy rain or persistent strong wind, (conditions which can negatively affect the results). Table 1 provides details of the survey dates and weather conditions.

⁶ [Online]. Available at: <http://www.magic.gov.uk/> [Accessed 0707/2021]

⁷ Bibby, C.J., N.D. Burgess & D.A. Hill, 2000: *Bird Census Techniques*: 2nd Edition. London: Academic Press

⁸ European Ornithological Atlas Committee, 1979. *Categories of Breeding Bird Evidence*. European Ornithological Atlas Committee.

Table 1: Breeding Bird Survey Dates and Conditions

Survey	Date	Cloud Cover (%)	Rain	Wind (Beaufort)	Visibility
1	24.05.21	50	None	Calm	Very good
2	25.06.21	60	Fine drizzle showers	Light breeze	Excellent

Species & Assemblage Assessment

- 4.5 The Chartered Institute of Ecology and Environmental Management (CIEEM) guidance on ecological impact assessment assesses nature conservation importance within a geographical context⁹. To attain each level of importance, an ornithological resource or one of the features (species population or assemblage of species) should meet the criteria set out in Table 2. In some cases, professional judgment, based on local knowledge, may be required to increase or decrease the allocation of importance.
- 4.6 The recent county annual county bird report *Yorkshire Bird Report 2016*¹⁰, was consulted to inform the assessment. The abundance of species referred to by these reports is classified by the following criteria:
- Very rare – Less than annual;
 - Rare – Annual or near-annual;
 - Very Scarce – 2-20 per year;
 - Scarce – 21-200 per year;
 - Fairly common – 201-2,000 per year;
 - Common – 2,001-10,000 per year;
 - Very common – 10,001-60,000 per year;
 - Abundant – 60,000+ per year
- 4.7 The Site has also been assessed against the LWS criteria for the identification of avian sites in Yorkshire¹¹ based on criteria set out for breeding birds. Local Wildlife Sites are recognised by central government as an important tool in promoting sustainable development and protecting biodiversity.

Table 2: Evaluation Criteria

Nature Conservation Value	Selection Criteria
International	A species which is part of the cited interest of a Special Protection Area (SPA) and which regularly occurs in internationally or nationally important numbers. A species present in internationally important numbers (>1% of international population).

⁹ CIEEM, 2018. *Guidelines for Ecological Impact Assessment in the UK and Ireland*. Winchester: Chartered Institute of Ecology and Environmental Management. [Online]. Available at: <https://cieem.net/wp-content/uploads/2019/02/Combined-EcIA-guidelines-2018-compressed.pdf> [Accessed 07/07/2021].

¹⁰ Yorkshire Ornithological Society 2016. *The Yorkshire Bird Report 2016*.

¹¹ Yorkshire Wildlife Trust, 2017. *Revised Guidelines for the Selection of Local Sites in Yorkshire*.

Nature Conservation Value	Selection Criteria
National	A species which is part of the cited interest of a Site of Special Scientific Interest (SSSI) and which regularly occurs in nationally or regionally important numbers. A nationally important assemblage of breeding or over-wintering species. A species present in nationally important numbers (>1% UK population). Rare breeding species (<300 breeding pairs in the UK).
Regional	Species of Principal Importance under Schedule 41 of NERC Act (2006), which are not covered above, and which regularly occur in regionally important numbers. Species present in regionally important numbers (>1% of regional population). Sustainable populations of species that are rare or scarce within a region. Species on the BoCC Red List and which regularly occur in regionally important numbers.
County	Species of Principal Importance under Schedule 41 of NERC Act (2006), which are not covered above, and which regularly occur in county important numbers Species present in county important numbers (>1% of county population). Sustainable populations of species that are rare or scarce within a county or listed as priority species for nature conservation under S41 of the NERC Act. A site afforded a non-statutory designation for its county important assemblage of birds (e.g., a Local Wildlife Site). Species on the BoCC Red List and which regularly occur in county important numbers.
Local	Other species of conservation interest (e.g., all other species on the BoCC Red and Amber List or listed as Species of Principal Importance under Schedule 41 of the NERC Act (2006) which are not covered above) regularly occurring in locally sustainable populations. Sustainable populations of species which are rare or scarce within the locality.
Site	Species that are common and widespread.

5.0 RESULTS & EVALUATION

Desk Study

5.1 Designated Sites

No sites of international importance were located within 5km of the Site. One site of national importance relevant to birds was returned within 2km. Dearne Valley Wetlands provisional Special Scientific Interest (pSSSI), is located 300m southwest, with seven wetland areas being within 2km of the site. Dearne Valley is important for its numbers and assemblages of breeding and non-breeding birds, including willow tit (*Poecile montanus*).

- 5.2 One Local Wildlife Site, Edderthorpe Ings, was identified within 2km of site, approximately 500m northwest. The site is important for a range of bird species including avocet (*Recurvirostra avosetta*) and little ringed plover (*Charadrius dubius*).

Protected/Notable Species

- 5.3 Yorkshire Council provided records of six 'notable' bird species 1km of the site within the last 20 years. These species records are summarised in Appendix B. There were no records from within the boundary of the site.

Field Survey

- 5.4 A total of 24 bird species were recorded during the breeding bird survey. Of these, seven appear on one or more of the following and are hereafter referred to as 'notable' species':

- Schedule 1 of the WCA;
- BoCC Red or Amber lists;
- Section 41 of the NERC Act 2006; and
- LBAP for Barnsley

- 5.5 Of the 24 species recorded, four species were confirmed as breeding within the site, all four species were of low conservation concern (BoCC green listed).

- 5.6 Ten species were considered probable breeders, including the notable species song thrush *Turdus philomelos*, willow warbler *Phylloscopus trochilus*, and willow tit. The other probable breeding species were of low conservation concern (BoCC green listed).

- 5.7 The remaining ten species recorded were considered possible breeders (6) or non-breeders (4).

- 5.8 Table 3 provides a summary of the notable bird species and their breeding status within the Site; Figure 1 shows their recorded locations. A full list of results is provided in Appendix A.

Table 3: Notable Bird Species Recorded and Their Recent Status in Yorkshire

Species	Legal/ Conservation Status	Peak Count / No. of Survey Visits Recorded	Breeding status	Recent Status in Yorkshire
Song thrush <i>Turdus philomelos</i>	Red list NERC S.41	3 / 2	Probable	Common resident, passage migrant and winter visitor

Species	Legal/ Conservation Status	Peak Count / No. of Survey Visits Recorded	Breeding status	Recent Status in Yorkshire
Dunnock <i>Prunella modularis</i>	Amber list NERC S.41	1 / 1	Possible	Abundant resident; passage migrant
Willow warbler <i>Phylloscopus trochilus</i>	Amber list	6 / 2	Probable	Common to abundant breeding summer visitor and passage migrant
Willow tit <i>Poecile montanus</i>	Red list NERC S.41	2 / 1	Probable	Uncommon and declining resident, scarce in the east
Black-headed gull <i>Chroicocephalus ridibundus</i>	Amber list	3 flyovers / 2	Non-breeder	Common breeder and abundant in winter
Cuckoo <i>Cuculus canorus</i>	Amber list NERC S.41	1 / 1	Possible	Fairly common to uncommon breeding summer visitor
Swift <i>Apus apus</i>	Amber list	3 flyovers / 1	Non-breeder	Common breeding summer visitor and passage migrant

Bird Survey Results Description

- 5.9 The woodland throughout the survey area provided breeding and/or foraging habitat for notable species such as willow tit, song thrush, willow warbler, dunnock and cuckoo *Cuculus canorus*. In addition, a range of widespread and common generalist species were recorded utilising this habitat, including common warbler, tit, corvid and finch species. Blackbird *Turdus merula*, blue tit *Cyanistes caeruleus*, great tit *Parus major* and long-tailed tit *Aegithalos caudatus* were all confirmed as using on-site trees to breed and/or rear young.
- 5.10 The open grassland habitats provided no breeding opportunities for the bird species recorded. The habitat did provide supplementary foraging opportunities for the notable song thrush, dunnock and cuckoo in addition to several common and widespread generalist species including robin *Erithacus rubecula*, wren *Troglodytes troglodytes*, and the range of common and widespread corvid *Corvidae* species recorded.
- 5.11 Four species, pied wagtail *Motacilla alba*, goldfinch *Carduelis carduelis* and the notable black-headed gull *Chroicocephalus ridibundus* and swift *Apus apus* were recorded as flyovers only.

Evaluation

Local Wildlife Site Selection Criteria

- 5.12 The site was assessed against published criteria for birds, set out in the Local Wildlife Site Selection Criteria for Yorkshire to assess the site against the thresholds for county value. Of the six criteria, only one was relevant to the recorded assemblage, as discussed below.

Any site which supports a breeding bird assemblage with a total score, calculated from tables below, which equals or exceeds the threshold site index values shown in the table.

Table 4: An Assessment of the Breeding Bird Assemblage against the Habitat Thresholds Provided in the Yorkshire LWS Handbook

Habitat	Species and individual scores	National Index Value	Yorkshire Index Value	Site Value
Woodland	Whitethroat – 1 Willow warbler – 1 Willow tit – 2	39	5	4

- 5.13 Table 4 identifies that the site does not meet the threshold index value and therefore falls short of meeting LWS criteria for the breeding bird assemblage recorded.

Assemblage Value

- 5.14 The assemblage recorded within the site comprises mainly common and widespread generalist species, several which are notable. However, the site also supported a population of willow tit which is an uncommon and declining species in Yorkshire and cuckoo which is fairly common to uncommon within the county. The site was therefore considered to be of **Local** level importance for its breeding bird assemblage.

Individual Species

- 5.15 Table 5 summarises the four species recorded that are of at least **Local** importance.
- 5.16 The other bird species recorded utilising the site habitats were either recorded in smaller numbers noted in unsuitable breeding habitats and/or are considered common and widespread breeding species nationally and/or locally. These individual species are recognised as being of only **Site** importance.

Table 5: Evaluation of Nature Conservation Importance of Birds Recorded within the Site

Species		Status			Importance
		NERC S.41	WCA Sch.1	LBAP	
Red List					
Song thrush	<i>Turdus philomelos</i>	+			Local
Cuckoo	<i>Cuculus canorus</i>	+			Local
Willow tit	<i>Poecile montanus</i>	+			Local
Amber List					
Willow warbler	<i>Phylloscopus trochilus</i>				Local

6.0 DISCUSSION & RECOMMENDATIONS

- 6.1 The following section provides an assessment of the potential impacts of the proposals upon breeding birds. Where appropriate, recommendations are provided for mitigation and enhancement that take account of the likely ecological effects. Throughout the evaluation, any recommendations for mitigation have been informed by the most up-to-date indicative layout.
- 6.2 The latest proposals involve the construction of five units for employment development, with associated parking and access infrastructure, with a mix of retained and created habitats surrounding the built areas.
- 6.3 The recommendations below have been given with the aim of informing development proposals on how to best maintain the conservation status of bird species present.

Impact Assessment of Breeding Birds

- 6.4 The potential impact of the loss or change of habitat upon breeding bird species arising from the effects of development is based upon an understanding of each species' ecological requirements, the type of development, number of birds recorded within the survey area, their nature conservation criteria based on legislation and current guidance, their county status according to *Yorkshire Bird Report 2016* and professional judgement.
- 6.5 The following potential impacts to the recorded bird populations and assemblage may result from the proposals:
- Direct loss/change of breeding habitat
 - Disturbance during construction and/or operation

Habitat Loss

- 6.6 The indicative layout of the development includes the loss of the majority of grassland and woodland habitat within the site, with a small boundary strip surrounding the site being retained.
- 6.7 The individual species recorded on site that are arguably the most vulnerable to impacts from habitat loss/change are the three species that are considered to be of at least Local importance. These comprise notable species that are either specially protected, appear on the BoCC Red/Amber lists and/or are listed as a NERC Priority Species and were recorded in at least locally important numbers.
- 6.8 The loss of grassland habitat will reduce the overall availability of foraging resources for the notable species song thrush, cuckoo and dunnock. However, this habitat provides only supplementary feeding resources for these species and its loss is expected to result in a **Negligible to Minor Adverse** impact on a **Local** level to these species. This is not a significant impact, with the scale of any adverse impact reduced by the presence of further suitable grassland habitats in the wider landscape.
- 6.9 The loss of the majority of woodland will result in the loss of the majority of the associated breeding and foraging opportunities for a variety of species, including song thrush, cuckoo, willow warbler and willow tit. The development will therefore result in a **Local Adverse** impact on the associated species which includes all four notable species. The remaining woodland along the eastern boundary may provide opportunity for a wildlife corridor to enable these

species, particularly willow tit, to access other suitable habitat in the surrounding area such as Dearne Valley pSSSI.

Habitat Mitigation

- 6.10 Since Dearne Valley is designated as a pSSSI due to its breeding willow tit population and the proposed loss of habitat within this development is expected to negatively impact this species, specific mitigation to compensate for this loss is required. As willow tit are a fairly sedentary species, it is important that a level of connectivity remains between the woodland habitats throughout the site to ensure there is a corridor to facilitate the movement of willow tit between the pSSSI and suitable woodland habitat further south. The eastern boundary appears most suitable in providing this corridor.
- 6.11 Within the existing woodland, appropriate conservation management for willow tit should include the maintenance of an established understorey throughout. The provision and retention of standing dead wood, particularly native birch *Betula*, within the woodland will provide suitable nesting opportunities for willow tit. Standing deadwood for nest sites can be provided by cutting suitable quick rotting trees at about 1.5m and by logs being tied to healthy trees.
- 6.12 There is also opportunity for the planting of native wet woodland species such as elder *Sambucus nigra*, alder *Alnus glutinosa*, white willow *Salix alba* and downy birch *Betula pubescens*. This will provide additional benefits to willow tit as well as other species.
- 6.13 To provide limited mitigation for the loss of grassland habitat on site it is recommended that areas of species-rich grassland are included within the remaining boundary strips surrounding the site to provide supplementary foraging opportunities for a variety of bird species including the notable song thrush, cuckoo and dunnoek. This grassland should include seed mixes specifically designed to provide foraging resources for birds and be cut after mid-July to allow plants to set seed. The use of fertilisers and pesticides should be avoided.

Disturbance Impacts

- 6.14 Construction operations have the potential to disturb birds using development area of the application site for roosting, foraging, and breeding. Operations likely to disturb breeding birds include noise and displacement during vegetation clearance, initial ground works and some construction activities. During the breeding season disturbance may lead to nest desertion or the avoidance of the area and reduce the suitability of retained nesting areas, such as the retained hedgerows or woodland edge. Whilst there is some potential for breeding success to be reduced, this is not expected to affect the local conservation status of the majority of the bird species using the survey area for breeding.

Disturbance Mitigation

- 6.15 To avoid disturbance to breeding birds, ground clearance works and vegetation will be undertaken outside the bird-breeding season (March to August, inclusive). If this is not possible, the area will be checked prior to removal of vegetation or ground works by an experienced ecologist. If active nests are found, vegetation will be left untouched and suitably buffered from works until all birds have fledged. Specific advice will be provided prior to undertaking the clearance. This would be a statutory requirement due to the protection of all nesting birds and their nests under the Wildlife and Countryside Act, 1981 (as amended). A suitably qualified ecologist would supervise this.

Enhancements

- 6.16 The inclusion of scrub and hedgerow planting within the area of grassland to the south will provide further nesting habitat for the range of generalist species recorded within the site. This planting, together with that proposed within the development area, should comprise native species, preferably those that are fruit or nut bearing.
- 6.17 Additional enhancements that could be integrated with the on-going management of the Site include the erection of a mixture of nest box types. The following provides details of suitable nest box types to be erected at suitable locations:
- A mixture of small hole (26mm and 32mm) boxes placed on suitable trees will provide nesting opportunities for species such as blue tit and great tit. These boxes generally have a high uptake rate;
 - Small open fronted nest boxes again should be placed especially on trees which support a climber such as ivy which provides a degree of concealment. These boxes typically attract species such as robin and blackbird.
 - Standard nest boxes are typically not used by willow tit but 26mm boxes set low and filled with wood chips are occasionally used.

Appendix A: Breeding Bird Survey Results & EOAC Criteria for Categorisation of Breeding Status

Common Name	Scientific name	Survey 1	Survey 2	Conservation Status & Protection	Breeding status ¹²
Woodpigeon	<i>Columba palumbus</i>	4 + 2 flyovers	8	Green list	Probable T, S, H
Magpie	<i>Pica pica</i>	0	4	Green list	Possible H
Rook	<i>Corvus frugilegus</i>	0	1	Green list	Possible H
Crow	<i>Corvus corone</i>	1	0	Green list	Possible H
Jackdaw	<i>Corvus monedula</i>	3	0	Green list	Possible H
Blue tit	<i>Cyanistes caeruleus</i>	1	2 + 1 family	Green list	Confirmed FL
Great tit	<i>Parus major</i>	3	3 + 2 families	Green list	Confirmed FL
Willow tit	<i>Poecile montanus</i>	0	2	Red list NERC S.41	Probable T, S, H
Long-tailed tit	<i>Aegithalos caudatus</i>	0	1 + 2 families	Green list	Confirmed FL
Willow warbler	<i>Phylloscopus trochilus</i>	4	6	Amber list	Probable A, T, S, H
Chiffchaff	<i>Phylloscopus collybita</i>	12	3	Green list	Probable T, S, H
Blackcap	<i>Sylvia atricapilla</i>	3	4	Green list	Probable T, S, H
Whitethroat	<i>Sylvia communis</i>	7	1	Green list	Probable T, S, H
Goldfinch	<i>Carduelis carduelis</i>	0	2 flyovers	Green list	Non-breeder F
Chaffinch	<i>Fringilla coelebs</i>	5	1	Green list	Probable T, S, H
Wren	<i>Troglodytes troglodytes</i>	8	7	Green list	Probable T, S
Blackbird	<i>Turdus merula</i>	16	10	Green list	Confirmed FL
Song thrush	<i>Turdus philomelos</i>	3	3	Red list NERC S.41	Probable T, S, H
Robin	<i>Erithacus rubecula</i>	9	6	Green list	Probable T, S, H
Dunnock	<i>Prunella modularis</i>	0	1	Amber list NERC S.41	Possible S, H
Pied wagtail	<i>Motacilla alba</i>	0	1 flyover	Green list	Non-breeder F
Black-headed gull	<i>Chroicocephalus ridibundus</i>	3 flyovers	1 flyover	Amber list	Non-breeder F
Swift	<i>Apus apus</i>	3 flyovers	0	Amber list	Non-breeder F
Cuckoo	<i>Cuculus canorus</i>	1	0	Red list NERC S.41	Possible S, H
Total No. Species: 24					

Breeding Status evidence can be broken down into four sections, each with their own codes, as defined by the European Ornithological Atlas Committee:

Confirmed breeder

¹²European Ornithological Atlas Committee, 1979. *Categories of Breeding Bird Evidence*. European Ornithological Atlas Committee.

DD – distraction display or injury feigning

UN – used nest or eggshells found from this season

FL – recently fledged young or downy young

ON – adults entering or leaving nest-site in circumstances indicating occupied nest

FF – adult carrying faecal sac or food for young

NE – nest containing eggs

NY – nest with young seen or heard

Probable breeder - Evidence accumulated during the survey indicates that the bird species is breeding on site.

P – pair in suitable nesting habitat

T – permanent territory (defended over at least 2 survey occasions)

D – courtship and display

N – visiting probable nest site

A – agitated behaviour

I – brood patch of incubating bird (from bird in hand)

B – nest building or excavating nest-hole

Possible breeder - Evidence accumulated during the survey indicates that the bird species could be breeding on site, but the evidence is less conclusive than that obtained for probable breeders.

H – observed in suitable nesting habitat

S – singing male

Non-breeder

F – flying over

M – migrant

U – summering non-breeder

UH – observed in unsuitable nesting habitat

Appendix B: Desktop Study Results for Bird Species within 1km of Site

Common Name	Scientific name	Conservation Status & Protection	Number of Records	Year of most recent Record
Avocet	<i>Recurvirostra avosetta</i>	LBAP ¹ , WCA Sch1 ⁵	5/12	2017
Greenshank	<i>Tringa nebularia</i>	WCA Sch1 ⁵	2	2017
Kingfisher	<i>Alcedo atthis</i>	LBAP ¹ , WCA Sch1 ⁵	1	2014
Skylark	<i>Alauda arvensis</i>	LBAP ¹ , NERC S41 ³ ,	26	2020
Barn owl	<i>Tyto alba</i>	WCA Sch1 ⁵	4	2009
Peregrine falcon	<i>Falco peregrinus</i>	WCA Sch1 ⁵	4	2017



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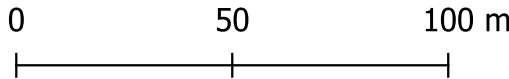
- Site Boundary
- Fly over only
- NERC Species of Principal Importance
- Schedule 1 Species
- LBAP Species (underlined>

BoCC Red-Listed Species

- CK Cuckoo
- ST Song Thrush
- WT Willow Tit

BoCC Amber Listed Species

- BH Black-headed Gull
- D Dunnock
- SI Swift
- WW Willow Warbler





Harworth Group
project
Houghton Main Colliery

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BREEDING BIRD SURVEY RESULTS -
LOCATIONS OF NOTABLE SPECIES

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