



Homes and Communities Agency

East Lancashire Paper Mill, Bury

Breeding Bird Survey

August 2017

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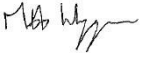
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Executive Summary

Contents	Summary
Site Location and Proposals	The site is a former paper mill located immediately to the east of the small town of Radcliffe, approximately 3.2km south of Bury, Greater Manchester (National Grid Reference: SD 79296 07445). The site measures approximately 18.9ha and is broadly bounded by Cross Lane to the north, Rectory Lane/Brook Street to the west, the River Irwell to the south and Bury Street to the east. Habitats present on-site include; broadleaf semi-natural woodland, broadleaf plantation woodland, scrub, semi-improved grassland, marshy grassland, tall ruderal, standing water, running water, amenity grassland, introduced shrub, buildings, trees and hard standing.
Previous Reports / Surveys	• WYG Extended Phase 1 Habitat survey (December 2016).
This Survey(s)	• Breeding Bird Survey.
Results	• A total of 38 species were recorded during the breeding bird surveys. • Four Red list Birds of Conservation Concern (BoCC) were recorded during the surveys: linnet, song thrush, starling and house sparrow. • Of these species, house sparrow was confirmed to be nesting on site, whilst starling was considered to be nesting within residential developments in the north-eastern portion of the site and within residential developments off-site to the north. • Ten Amber list BoCC were recorded during the surveys: bullfinch, dunnock, mallard, willow warbler, dipper, reed bunting, swift, whitethroat, kestrel and black-headed gull. • Of these species, willow warbler and dunnock were confirmed to be nesting on-site, whilst bullfinch and mallard were considered likely to be nesting on site. • Of these Red and Amber list species, 7 are also NERC S41 species: bullfinch, dunnock, house sparrow, linnet, reed bunting, song thrush and starling. House sparrow and dunnock were confirmed to be nesting on site whilst bullfinch was considered likely to nest on site. • Twenty four Green list BoCC were also recorded during the surveys, including a breeding colony of sand martins within a retaining wall forming the southern site boundary with the River Irwell (c. 15-20 breeding pairs). • One species' breeding population on site, willow warbler (amber list BoCC) was considered to be of county level importance. • The habitat types present within the site support birds that will require mitigation due to loss of their foraging habitats from the proposed development.
Additional Survey Recommendations	• None.

Mitigation/Enhancements	• There is potential for off-site mitigation immediately adjacent to the eastern boundary of the site, where an area of existing willow scrub could be planted up and expanded to mitigate for the loss of this habitat type from site. This would provide suitable breeding habitat for willow warbler. • However, if off site mitigation is not an option, it is recommended that a habitat management plan is adopted for the site that will see retained habitats and newly created replacement habitats managed for the benefit of a variety of flora and fauna, including an array of bird species. • The retaining wall of the River Irwell (forming part of the southern site boundary) which currently supports a breeding colony of sand martin should be retained in its current state. Should this not be possible and works are to be carried out on the retaining wall, construction of a sand martin nesting bank/wall will be required adjacent to the River Irwell to allow the breeding colony of sand martin to continue at the site beyond the construction phase of the development. • Works to remove vegetation should be conducted outside of the bird nesting season (i.e. during October to February, inclusive). If this is not possible and vegetation must be removed during the nesting bird season (March to September, inclusive) it will be necessary for a suitably qualified ecologist to conduct a nest check of the vegetation planned for removal; • Furthermore, any works on the retaining wall of the River Irwell forming part of the southern site boundary should also be conducted outside of the bird nesting season (as above). • A sympathetic lighting scheme will be required for future development that prevents light spill on to the retained habitat areas. • 15 no. 32mm bird boxes to be placed on retained mature trees within the site to enhance the breeding bird potential of the site.
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1.0 Introduction

1.1 Background

WYG was commissioned by the Homes and Communities Agency in November 2016 to undertake an extended Phase 1 habitat survey at the former East Lancashire Paper Mill site in Bury, hereafter referred to as 'the site'. This survey is required to accompany a planning application for future development at the site. Following completion of the extended Phase 1 habitat survey, a number of additional ecological surveys were recommended including surveys for the presence of breeding birds, commissioned in March 2017.

This report was prepared by WYG Consultant Ecologist, Matthew Wiggins.

1.2 Site Location and General Description

The site is a former paper mill located immediately in the east of the small town of Radcliffe, approximately 3.2km south of Bury, Greater Manchester (National Grid Reference: SD 79296 07445). The site measures approximately 18.9ha and is broadly bounded by Cross Lane to the north, Rectory Lane/Brook Street to the west, the River Irwell to the south and Bury Street to the east. Habitats present on-site include; broadleaf semi-natural woodland, broadleaf plantation woodland, scrub, semi-improved grassland, marshy grassland, tall ruderal, standing water, running water, amenity grassland, introduced shrub, buildings, trees and hard standing. The red line boundary of the site is displayed in Figure 1.

1.3 Development Proposals

Development proposals include residential development at the site of up to 450 homes and potentially a new secondary school. At the time of writing no proposed development layout of the site was available. It is anticipated that the proposed development will also incorporate soft landscaping and associated infrastructure.

1.4 Survey and Reporting Objectives

The scope of the work comprised:

- A desk study to obtain existing information on statutory and non-statutory sites of nature conservation interest and records of protected/notable bird species within the site and its environs; and



- Determine the breeding bird assemblage present on site through a suite of breeding bird surveys and assess the potential ornithological constraints to, and impacts from, the proposed development with recommendations for any further survey and appropriate mitigation.

2.0 Policy and Legislation

2.1 National Planning Policy

Natural England's standing advice to Local Planning Authorities (LPAs) follows the principles and advice set out in the National Planning Policy Framework (NPPF) (Department for Communities and Local Government, 2012). Paragraph 109 of the NPPF states that:

The planning system should contribute to and enhance the natural and local environment by:

- *Protecting and enhancing valued landscapes, geological conservation interests and soils;*
- *Recognising the wider benefits of ecosystem services; and,*
- *Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.*

The Office of the Deputy Prime Minister (ODPM) Circular 06/2005: *Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System*, provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. This circular should be read in conjunction with the NPPF and planning practice guidance. Circular 06/2005 states:

"It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted. However, bearing in mind the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present and affected by the development. Where this is the case, the survey should be completed and any necessary measures to protect the species should be in place, through conditions and/or planning obligations, before the permission is granted."

It further notes that species identified as priorities for conservation by local biodiversity partnerships are capable of being material considerations in the making of planning decisions.



2.2 Local Planning Policy

Local guidance for planning is provided in the 'Planning West Lancashire Borough Council Local Plan 2012-2027' document issued by West Lancashire Borough Council; Section 9.2 Policy EN2: 'Preserving and Enhancing West Lancashire's Natural Environment' of this document outlines guidance for planning with regards to Natural Heritage.

2.3 Local Biodiversity Action Plan

NERC Section 41 species of principal importance, formally the UK Biodiversity Action Plan (BAP), lists bird species for which there is an action plan which is designed to increase a population range and / or size.

The Greater Manchester Biodiversity Action Plan (LBAP) lists priority species and habitats for the county and includes objectives and targets for maintaining and enhancing the status of these species and habitats. There are a number of priority bird species listed in the L BAP. Willow tit is listed on the LBAP and is considered particularly applicable to the site given the willow scrub habitat which dominates much of the site.

2.4 Birds of Conservation Concern (BoCC)

The conservation status of all regularly occurring British birds has been analysed in co-operation with the leading governmental and non-governmental conservation organisations, including the Royal Society for the Protection of Birds (RSPB), British Trust for Ornithology (BTO) and Birdlife International to produce the Birds of Conservation Concern 4 (Eaton *et al.*, 2015). The basis of species ongoing population trends are assigned to one of three lists of Conservation Concern. These are the specific Red, Amber and Green lists for England. Although the lists confer no legal status in themselves, they are useful in evaluating the conservation significance of bird assemblages, and for assessing the potential significance of impacts and informing appropriate levels of mitigation with respect to bird populations. Species which do not breed in the UK or do not winter in significant numbers are not listed on any of the Red, Amber or Green Lists, neither are introduced species.

Birds of Conservation Concern (BoCC) Red List criteria for breeding birds are those which have experienced a severe decline of more than 50% of population and / or range over the last 25 years, as measured by the number of 10km squares occupied by breeding birds of the species concerned. Species listed as globally threatened by Birdlife International and those with a historical decline in the UK between 1800 and 1995 (without evidence of recovery) are also included.



BoCC Amber List criteria for breeding birds are those which have experienced a moderate decline of between 25% and 49% of population and / or range over the last 25 years. Species of European conservation concern and those with a historical decline but which are currently recovering are also included.

Species which have stable populations or which are increasing are listed on the BoCC Green List. These species are not currently considered to be threatened.

2.5 Legislation

2.5.1 Internationally Designated Sites

Annex 1 of the EU 'Birds' Directive (1979) lists 194 species that are subject to special conservation measures concerning their habitat in order to ensure their survival and reproduction. Member States are required to designate Special Protection Areas (SPAs) for the Annex 1 and all migratory species. SPAs are scientifically identified areas critical to the survival of the targeted species. The SPAs form part of the Natura 2000 EU network of protected nature sites. The designation of an area as an SPA gives it a high level of protection from potentially damaging developments (European Commission (EC), 2004).

2.5.2 Conservation of Habitats and Species Regulations 2010 (as amended)

The *Conservation of Habitats and Species Regulations, 2010* (as amended) transposed the requirement from the EU Wild Birds Directive 2009 requiring that competent authorities such as local planning authorities, must exercise their functions so as to secure the following objective:

(3) The objective is the preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat, as appropriate, having regard to the requirements of Article 2 of the new Wild Birds Directive.

This requirement applies specifically to any functions exercisable in relation to town and country planning.

2.5.3 Wildlife and Countryside Act 1981 (as amended)

The legislative provisions for the protection of wild birds in the UK are contained primarily in Sections 1 - 7 of the Wildlife and Countryside Act (WCA) 1981 (as amended). Under the WCA, a wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a



wild state. This Act has been amended and reinforced in England and Wales by the Countryside and Rights of Way (CROW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act (2006).

All wild birds in the UK are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy the nest (whilst being built or in use) or its eggs.

Bird species listed in Schedule 1 of the 1981 Act (as amended) receive further protection which makes it an offence to intentionally or recklessly disturb these species while building a nest or in, on or near a nest containing eggs or young; or to disturb dependent young of such a bird (HMSO 1981 & 2000).

2.5.4 Natural Environment and Rural Communities (NERC) Act (2006)

The Natural Environment and Rural Communities (NERC) Act 2006 Section 41 (S41) requires the Secretary of State to publish a list (in consultation with Natural England) of habitats and species which are of principal importance for the implementation of the biodiversity duty in Section 40 that applies to all public bodies in England, including local planning authorities. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 habitats of principal importance and 1,150 species of principal importance, of these species 49 are birds.



3.0 Methodology

3.1 Desk Study

3.1.1 Data Search

In November 2016, data was obtained from Greater Manchester Ecology Unit (GMEU; Local Biodiversity Records Centre for Greater Manchester) and a search was made of Natural England's interactive, web-based MAGIC database regarding the presence of statutory and non-statutory nature conservation designations and protected and notable bird species within 2km of the site boundary.

3.2 Breeding Bird Survey Methodology

Surveys were undertaken by experienced ornithologists Mike Brown and Matthew Wiggins and were carried out once per month between March and June 2017, inclusive. Surveys were scheduled to take place shortly after sunrise and in favourable weather conditions as recommended by recognised guidance (Gilbert *et al.*, 2002). Access was available to the whole site for the duration of the surveys.

Survey methodology involved standard territory (registration) mapping techniques as detailed in Bibby *et al.* (2007). This method is based on the observation that many species during the breeding season are territorial. This is found particularly amongst passerines (song birds), where territories are often marked by conspicuous song, display, and periodic disputes with neighbouring individuals. The survey area was walked and registrations of birds, using standard British Trust for Ornithology (BTO) two letter species codes and activity codes (Gilbert *et al.*, 2002), were placed onto an appropriate field map.

For recording passerines, specific symbols were used for singing, calling and movements of the same bird between different areas, flying, carrying food, nest building, aggressive encounters and other notable behaviour (Gilbert *et al.*, 2002). The expected outcome of this technique is that mapped registrations fall into clusters, approximately coinciding with territories. Where a species has closely packed territories (e.g. reed warbler *Acrocephalus scirpaceus*), the mapping of simultaneously singing birds becomes essential. Indicative territory boundaries are taken to be between such birds.

3.3 Limitations

To determine presence or likely absence of protected species usually requires multiple visits at suitable times of the year. As a result, this survey focuses on assessing the **potential** of the survey area to support species of note, which are considered to be of principal importance for the conservation of biodiversity with



reference to those given protection under UK or European wildlife legislation. This report cannot therefore be considered a fully comprehensive assessment of the ecological interest of the survey area. However, it does provide an assessment of the ecological interest present on the day the survey area was visited and highlights areas where further survey work may be recommended.

Due to the complexity of avian behaviour some degree of subjectivity is inevitably involved in this assessment. However, overall the survey is considered to offer a high degree of accuracy in assessing the range of species breeding within the site and their relative abundance at the time of the survey.

The details of this report will remain valid for a period of **two years** from the last date of survey, i.e. until end of June 2019. Beyond this period, if works have not yet been undertaken, it is recommended that the validity of this data should be reviewed to determine whether further updates are necessary.



4.0 Baseline Conditions

4.1 Desk Study

4.1.1 Data search

Records identified by Greater Manchester Ecology Unit (GMEU) and MAGIC are summarised below.

Statutory sites

Sites with statutory designations receive varying degrees of legal protection under UK statute and European Directives. There are a number of statutory designations used for sites of high nature conservation value in the UK which are made depending upon the importance of the site in a local, regional, national or international context.

There are two statutory designated sites within 2km of the site; Chapelfield Local Nature Reserve (LNR) is located approximately 0.6km south of the site and the Hollins Vale LNR is located approximately 2km east of the site. Hollins Vale LNR is indirectly hydrologically connected (c.4km via watercourses) to the site via the Hollins Brook which flows from the LNR and discharges into the River Irwell. However, this confluence is upstream of the site. Details of these designated sites are provided in Table 1.

Table 1: Statutory designated sites within 2km

Designation	Site Name	Distance & Direction	Summary of features
Local Nature Reserve (LNR)	Chapelfield	0.6km south	The large triangular shaped reservoir is the central feature of the nature reserve and contains a variety of aquatic plants including the locally rare water violet. Water birds like coot and moorhen are permanent residents on the reservoir. In the woodland areas, English oak, ash, sycamore and hawthorn can be found with willow sp. around the edge of the reservoirs. The woodland is an important refuge for wildlife and many typical bird species including jay, great spotted woodpecker, great tit, wren, chaffinch and nuthatch have been recorded here.
Local Nature Reserve (LNR)	Hollins Vale	2km east	Hollins Vale is a farmland reserve with areas of woodland and wetland adding to its wildlife diversity. The woods are abundant in English bluebell and lesser celandine as well as having wood anemone and violet species. The grassland is grazed by cows and is rich in flowers. One area previously used for growing potatoes contains plants such as devil's bit scabious, pignut and harebell. There are many birds and butterflies present on the reserve.

Non-statutory sites

Non-statutory sites are designated by LPAs and are recognized as being of local nature conservation importance. These sites do not have statutory protection but are a 'material consideration' in the determination of planning applications. The titles of these sites can vary between counties; in Greater Manchester they are known as Sites of Biological Importance (SBIs). There are 13 non-statutory designated sites within 2km of the site which are summarised in Table 2.

Table 2. Non-statutory designated sites within 2km of the site.

Designation	Site Name	Distance & Direction	Summary of features
Site of Biological Importance (SBI)	Sailor's Brow & Springwater Park	~0.2km south	No further information available.
Site of Biological Importance (SBI)	Wetland Near Radcliffe	~0.35m northwest	No further information available.
Site of Biological Importance (SBI)	Swan Lodge	~0.45km northeast	No further information available.
Site of Biological Importance (SBI)	Manchester, Bolton & Bury Canal (East)	~0.53km northwest	No further information available.
Site of Biological Importance (SBI)	Reservoirs at Chapelfield	~0.8km south	The SBI status has been awarded for the aquatic plants that can be found within it, and in particular, the locally rare water violet.
Site of Biological Importance (SBI)	Withins Reservoir	~0.95km northwest	No further information available.
Site of Biological Importance (SBI)	Elton Reservoir	~1.27km northwest	No further information available.
Site of Biological Importance (SBI)	Marl Pits at Black Lane	~1.3km northwest	No further information available.
Site of Biological Importance (SBI)	Spen Moor Ponds	~1.4km northwest	The SBI includes a collection of six small field ponds with botanical, aquatic invertebrate, amphibian and bird interest. The ponds support four species of breeding amphibians including common frog, smooth newt, palmate newt and GCN. These ponds also support high numbers of aquatic invertebrates. The SBI also includes fields which support breeding skylark and good numbers of other breeding birds such as reed bunting, mallard and coot are also present.
Site of Biological Importance (SBI)	Elton Goyt	~1.5km north	Supports important marshy grassland.
Site of Biological Importance (SBI)	Lower Hinds	~1.65km north	No further information available.
Site of Biological Importance (SBI)	Ringley Woods	~1.67km southwest	Supports important native woodland.
Site of Biological Importance (SBI)	Parr Brook	~1.9km east	No further information available.

Designation	Site Name	Distance & Direction	Summary of features
Site of Biological Importance (SBI)	Daisyfield	~1.9km north	No further information available.

4.2 Protected and Otherwise Notable Birds

The ecological data request from GMEU returned 112 records of 20 species of birds within 2km of the site. These records are summarised below in Table 3.

Table 3. Protected and Notable Birds within 2km of the Site.

Common Name	Scientific Name	Status*	Approximate Distance (km); and Direction from Site Boundary of closest record
Barn owl	<i>Tyto alba</i>	Sch. 1 ; BoCC – Green	1.78km north-west
Bullfinch	<i>Pyrrhula pyrrhula</i>	NERC; BoCC – Amber	0.65km south-west
Common scoter	<i>Melanitta nigra</i>	Sch. 1 ; BoCC – Red	1.1km north-west
Curlew	<i>Numenius arquata</i>	NERC; BoCC – Red	1.94km north-west
Dunnock	<i>Prunella modularis</i>	NERC; BoCC – Amber	1.67km north-west
Grasshopper warbler	<i>Locustella naevia</i>	NERC; BoCC – Red	1.98km north-west
Herring gull	<i>Larus argentatus</i>	NERC; BoCC – Red	1.6km north-west
House sparrow	<i>Passer domesticus</i>	NERC; BoCC – Red	0.68km west
Kingfisher	<i>Alcedo atthis</i>	Sch. 1 ; BoCC – Amber	0.42km north-west
Lapwing	<i>Vanellus vanellus</i>	NERC; BoCC – Red	0.6km north-west
Lesser redpoll	<i>Carduelis cabaret</i>	NERC; BoCC – Red	0.95km north
Linnet	<i>Carduelis cannabina</i>	NERC; BoCC – Red	1.46km north
Little ringed plover	<i>Charadrius dubius</i>	Sch. 1 ; BoCC – Green	0.4km south
Peregrine falcon	<i>Falco peregrinus</i>	Sch. 1 ; BoCC – Green	0.86km north
Reed bunting	<i>Emberiza schoeniclus</i>	NERC; BoCC – Amber	0.06km south
Scaup	<i>Aythya marila</i>	Sch. 1 ; NERC; BoCC – Red	1.1km north-west
Skylark	<i>Alauda arvensis</i>	NERC; BoCC – Red	0.37km south
Song thrush	<i>Turdus philomelos</i>	NERC; BoCC – Red	0.5km north-west
Starling	<i>Sturnus vulgaris</i>	NERC; BoCC – Red	0.98km south
Yellowhammer	<i>Emberiza citrinella</i>	NERC; BoCC – Red	1.85km north-west

Key: Sch. 1 Wildlife and Countryside Act Schedule 1 species

NERC S41 Natural Environment and Rural Communities (NERC) Act 2006 Section 41 species

BoCC Birds of Conservation Concern Red, Amber and Green Lists



4.3 Field Survey

Surveys were carried out by experienced ornithologists Mike Brown and Matthew Wiggins and were undertaken once per month between March and June 2017 (inclusive). Surveys were scheduled to take place shortly after sunrise and in favourable weather conditions as recommended by recognised guidance (Gilbert *et al.*, 2002).

Details of the survey dates and weather conditions are provided in Table 4 below:

Table 4: Dates and weather conditions for the breeding bird surveys.

Date	Times	Weather conditions
30/03/17	07.00 – 10.30	S 10km/h wind direction, 12°C, no precipitation, overcast
20/04/17	06.30 – 10.00	SW 16km/h wind direction, 9°C, no precipitation, overcast
22/05/17	06.00 – 10.00	SE 11km/h wind direction, 15°C, no precipitation, clear
21/06/17	05.30 – 09.30	Variable 5km/h wind direction, 18°C, no precipitation, clear

A total of 38 bird species were recorded during the breeding bird surveys, of these a total of six species were confirmed to be breeding within the site and 18 species were considered likely to be breeding on site.

4.3.1 Wildlife and Countryside Act Schedule 1 species

Whilst no Schedule 1 species were recorded during the suite of breeding bird surveys conducted, records returned by GMEU highlighted that six Schedule 1 bird species have been recorded within 2km of the site.



Of these six schedule 1 species, potential suitable habitat is present on-site/immediately adjacent to site for three of the six species noted, these being kingfisher, little ringed plover and peregrine falcon.

Whilst suitable breeding habitat for little ringed plover, such as bare gravel around flooded gravel pits, sandy riverbanks and reservoirs is present on-site/immediately adjacent to the site, this species was not recorded during any of the breeding bird surveys conducted.

A tall brick built chimney/tower within a factory site c.80m south of the site (separated from the site by the River Irwell) provided suitable habitat for breeding peregrine, however, no peregrines were recorded during the breeding bird surveys.

The River Irwell provides suitable foraging habitat for kingfisher immediately adjacent to the southern site boundary, and whilst not notable, sections of the river bank provided reasonably steep earth banks suitable for the excavation of kingfisher nesting chambers. However, despite this, no kingfisher were recorded on the stretch of the Irwell immediately south of the site.

Whilst a single barn owl record was provided by GMEU within 2km of the site, it was noted that this was a historic record of an escaped captive bird in 1995. There is no suitable nesting or foraging habitat on site for barn owl, nor common scoter or scaup, also returned through desk study.

4.3.2 Section 41 NERC Act 2006 Species

Seven species listed on Schedule 41 of the NERC Act were recorded on site during the breeding bird surveys. Species recorded included: bullfinch, dunnock, house sparrow, linnet, reed bunting, song thrush and starling. Of these species house sparrow and dunnock were confirmed to be nesting on site whilst bullfinch were considered likely to nest on site. Starling was considered to be nesting within residential developments off-site.

4.3.3 Red and Amber List Birds of Conservation Concern (BoCC)

There are five notable species that are considered either to have nested on site or were likely to nest on site which are listed in Table 5 below. See Figures 2 and 3 within Appendix A for the locations of all Red and Amber listed species recorded during the surveys. Other Red and Amber Listed species that were recorded during the surveys but are not considered to have bred on site, are included in Table 7.

Table 5: Notable bird species considered to have nested or were likely to have nested on site.

Scientific name	Common name (BTO code)	Indicative no. of territories	Comments
BoCC Red List			
<i>Passer domesticus</i>	House sparrow (HS)	1 colony within the western portion of the site, and 1 colony immediately adjacent to the north-eastern site boundary.	Recorded on 67 occasions involving a peak of 20 birds.
BoCC Amber List			
<i>Pyrrhula pyrrhula</i>	Bullfinch (BF)	1	Recorded on 8 occasions involving a peak of 4 birds.
<i>Prunella modularis</i>	Dunnock (D.)	5	Recorded on 23 occasions involving a peak of 10 birds.
<i>Anas platyrhynchos</i>	Mallard (MA)	1	Recorded on 6 occasions involving a peak of 3 birds.
<i>Phylloscopus trochilus</i>	Willow warbler (WW)	16	Recorded on 77 occasions involving a peak of 32 birds.

4.3.4 Common and widespread species

18 common and widespread species were recorded breeding or likely breeding within the site (see Table 6).

Table 6: Common and widespread bird species considered to have nested or were likely to have nested on site (BoCC Green List).

Scientific name	Common name (BTO code)	Indicative no. of territories	Comments
<i>Turdus merula</i>	Blackbird (B.)	4	Recorded on 30 occasions involving a peak of 10 birds.
<i>Sylvia atricapilla</i>	Blackcap (BC)	1	Recorded on 2 occasions involving a peak of 2 birds.
<i>Cyanistes caeruleus</i>	Blue tit (BT)	2	Recorded on 7 occasions involving a peak of 5 birds.
<i>Corvus corone</i>	Carrion crow (C.)	1	Recorded on 5 occasions involving a peak of 3 birds.
<i>Phylloscopus collybita</i>	Chiffchaff (CC)	2	Recorded on 4 occasions involving a peak of 3 birds.
<i>Fulica atra</i>	Coot (CO)	1	Recorded on 8 occasions involving a peak of 3 birds.
<i>Carduelis carduelis</i>	Goldfinch (GO)	3	Recorded on 19 occasions involving a peak of 11 birds.
<i>Parus major</i>	Great tit (GT)	3	Recorded on 18 occasions involving a peak of 5 birds.
<i>Carduelis chloris</i>	Greenfinch (GR)	2	Recorded on 19 occasions involving a peak of 10 birds.
<i>Tachybaptus ruficollis</i>	Little grebe (LG)	1	Recorded on 2 occasions involving a peak of 1 bird.
<i>Aegithalos caudatus</i>	Long-tailed tit (LT)	2	Recorded on 11 occasions involving a peak of 5 birds.
<i>Pica pica</i>	Magpie (MG)	1	Recorded on 10 occasions involving a peak of 4 birds.
<i>Motacilla alba</i>	Pied wagtail (PW)	1	Recorded on 5 occasions involving a peak of 2 birds.
<i>Erithacus rubecula</i>	Robin (R.)	4	Recorded on 33 occasions involving a peak of 14 birds.
<i>Riparia riparia</i>	Sand martin (SM)	1 breeding colony within brick retaining wall of River Irwell (c. 15 – 20 breeding pairs).	Recorded on 34 occasions involving a peak of 12 birds.
<i>Aythya fuligula</i>	Tufted duck (TU)	1	Recorded on 1 occasion involving a peak of 2 birds.
<i>Columba palumbus</i>	Woodpigeon (WP)	2	Recorded on 40 occasions involving a peak of 14 birds.
<i>Troglodytes troglodytes</i>	Wren (WR)	1	Recorded on 8 occasions involving a peak of 2 birds.

4.3.5 Non-Breeding Species

Fifteen species that did not appear to hold breeding territories or were only recorded on adjacent land where they may be breeding are listed in Table 7 and are not considered to have bred on site. No suitable breeding habitat occurs within the site for a number of these species including black-headed gull, dipper, grey heron, goosander, starling and swift which are considered to be utilising the site for foraging only. Swallows recorded foraging over the site could use a dilapidated building in the far west of the site to nest, however no nesting activity from swallows was observed at the time of survey.

Table 7: Non-breeding species.

Scientific name	Common name (BTO code)	Comments	Status (BoCC)
<i>Chroicocephalus ridibundus</i>	Black-headed gull (BH)	Recorded on 2 occasions involving a peak of 1 bird.	Amber List
<i>Buteo buteo</i>	Buzzard (BZ)	Recorded on 1 occasion flying over the site.	Green List
<i>Periparus ater</i>	Coal tit (CT)	Recorded on 1 occasions involving a peak of 2 birds.	Green List
<i>Cinclus cinclus</i>	Dipper (DI)	Recorded on 1 occasion on the River Irwell.	Amber List
<i>Mergus merganser</i>	Goosander (GD)	Recorded on 1 occasion on the River Irwell.	Green List
<i>Ardea cinerea</i>	Grey heron (H.)	Recorded on 1 occasion at an on-site pond.	Green List
<i>Garrulus glandarius</i>	Jay (J.)	Recorded on 1 occasion flying along off-site bank of the River Irwell.	Green List
<i>Falco tinnunculus</i>	Kestrel (K.)	Recorded on one occasion flying over and off site.	Amber List
<i>Carduelis cannabina</i>	Linnet (LI)	Pair recorded on 1 occasion within scrub.	Red List
<i>Emberiza schoeniclus</i>	Reed bunting (RB)	Recorded on 4 occasions involving a peak of 3 birds.	Amber List
<i>Turdus philomelos</i>	Song thrush (ST)	Recorded on 8 occasions involving a peak of 2 birds.	Red List
<i>Sturnus vulgaris</i>	Starling (SG)	Recorded on 19 occasions foraging on the on-site cricket pitch and flying off-site into housing estates.	Red List
<i>Hirundo rustica</i>	Swallow (SL)	Recorded on 1 occasion foraging on-site, involving a peak of 3 birds.	Green List
<i>Apus apus</i>	Swift (SI)	Recorded on 2 occasions foraging on-site, involving a peak of 2 birds.	Amber List
<i>Sylvia communis</i>	Whitethroat (WH)	Recorded on 2 occasions involving a peak of 1 bird.	Amber List

5.0 Discussion

5.1 Summary of Legislation

The legislative provisions for the protection of wild birds in the UK are contained primarily in Section 1 – 7 of the Wildlife and Countryside Act (W&CA) 1981 (as amended). Under the WCA, a wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a wild state. This Act has been amended and reinforced in England and Wales by the Countryside and Rights of Way (CROW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act (2006).

The Act affords legal protection to all birds, their nests and eggs, and further statutory protection is afforded to those species listed under Schedule 1 of the WCA, for which it is an offense to intentionally or recklessly disturb such species while building a nest or in, on or near a nest containing eggs or young; or to disturb dependent young of such a bird.

5.2 Notable Breeding Bird Species

A total of five notable bird species were considered to be breeding within the site or immediately adjacent to the site, see Table 5 and Appendix A, Figures 2 and 3. Of these, willow warbler (of which professional opinion considered there to be a notable population at county level present on site), bullfinch and dunnock were recorded and these species are considered to be typical representatives of a scrub bird assemblage. On site, these species are typically utilising the dense scrub vegetation and open, edge areas between them around the site. House sparrow, observed foraging on site during all of the survey visits, was present in the western portion of the site dominated by residential properties (in which they are confirmed to have bred) and associated green space, as well as along the north-eastern boundary of the site, adjacent to residential properties (off-site) in which sparrows are confirmed to have bred.

It was considered that species such as willow warbler, bullfinch and dunnock utilise the scrub and edge areas of scrub throughout the site for breeding, as well as foraging, whilst it is considered that reed bunting utilised the marshy grassland/rush pasture off-site to the immediate east for breeding. Mallard was primarily found within the reservoir or pond habitats on site, where open water provides suitable foraging and refuge habitat for this species, and thick vegetative cover surrounding the shores of waterbodies on site provides suitable nesting habitat for this species. Kestrel was observed flying over the site on only one occasion, but was not observed exhibiting foraging or nesting behaviour. Furthermore, the habitats present on site are not considered to offer suitable nesting opportunities for this species. Black-headed gull was



observed on the reservoir and flying over the site on only two occasions, and the habitats present on site are not considered to offer suitable nesting opportunities for this species.

5.3 Common and Widespread Breeding Bird Species

Eighteen common and widespread species were recorded breeding or likely breeding within, or immediately adjacent to the site (Table 6). The most frequently occurring Green List breeding species recorded during the surveys were; blackbird, goldfinch, great tit, robin and woodpigeon. These species are primarily associated with the scrub habitats on site. Sand martin were also frequently recorded during survey, utilising the willow scrub and River Irwell immediately adjacent to the southern site boundary for foraging, as well as confirmed breeding within the retaining wall which forms a stretch of the southern site boundary with the River Irwell, within gaps between stonework.

An incidental record of sedge warbler was made on-site during another ecological survey conducted at the site, however, given this species was not recorded again during the breeding bird surveys or other ecological surveys conducted on-site during the breeding season, it is considered this species was a passage migrant and not habitually using the site.

5.4 Non-breeding Bird Species

Of the 38 bird species recorded during the surveys, 15 were considered to be non-breeding; see Table 7 above. These species were considered to be foraging throughout the site, passage birds on migration, species overflying the site or species passing along the River Irwell immediately adjacent to the southern site boundary. Some species, such as starling and swift may be nesting within residential developments in the local area, whilst species such as song thrush and coal tit are expected to be nesting within the gardens of such residential developments.

5.5 Breeding Bird Summary and Recommendations

The site supports a number of BoCC Red and Amber list species predominantly utilising the scrub habitats present on-site for breeding and foraging throughout the entirety of the site. Maps showing the results from the 2017 surveys (Appendix A, Figures 2 & 3) show the distribution of BoCC Red and Amber list birds on site which is often closely associated with the scrub habitat. Mallard, little grebe and coot are present within the east of the site and are associated with the reservoir, where these species can forage and are considered likely to have bred.



Survey results indicate willow warbler is associated with willow scrub which is the dominant habitat present on-site. The site appears to support a thriving population of willow warbler amounting to a probable population of 16 breeding pairs/likely territories. Such a population is considered to be of county importance. This habitat also supports other bird species such as bullfinch, goldfinch, greenfinch and chiffchaff.

In the east of the site, where a reservoir is present, there was a narrow range of waders and wildfowl present. A portion of the western site, dominated by residential housing and associated green space, exhibited a typical assemblage of garden birds, with a colony of house sparrows noted breeding within residential properties on site.

Areas of willow scrub will either need to be retained on site to continue to provide suitable nesting and foraging habitat for the bird assemblage currently using this habitat or measures to mitigate the loss of this habitat type will be required off site, given that the site, and specifically the willow scrub habitat currently supports a willow warbler population that professional opinion has considered to be of county importance. Mature trees should be retained to provide suitable perching opportunities for raptors that have been recorded on site (e.g. kestrel).

Where areas of vegetation are to be lost, it is important that suitable mitigation is employed to retain and enhance the current bird assemblage. This could comprise planting hedgerows throughout the site to provide flight lines and wildlife corridors, seeking to prevent habitat fragmentation occurring as a result of the development. If gardens are created as a result of the development this may help local populations of garden birds to increase, providing the gardens are well connected and not isolated. Some areas of the site could be allowed to turn into scrub through a lack of management. Where possible mature trees present on site should be retained due to their value to biodiversity, however where mature trees must be removed these should be replaced with trees of equal or greater potential to support birds that currently use site trees (e.g. raptor species). Some areas of the site have marsh-like characteristics, and the presence of water in a landscape can provide enhanced biological value to many birds and other fauna, therefore it is recommended that ponds and/or marshy areas are retained and/or created on site to continue providing these habitats into the future.

Works to remove vegetation should be conducted outside of the bird nesting season (i.e. during October to February, inclusive). If this is not possible and vegetation must be removed during the nesting bird season (March to September, inclusive) it will be necessary for a suitably qualified ecologist to conduct a nest check of the vegetation planned for removal. Note that woodpigeon can nest all year round. Once the check is complete, and providing no active bird nests have been found, a window of 48 hours will be



granted within which vegetation that has been checked can be removed. Once this time has passed a further nest check will be required in case a bird has started nesting within this time. If a nest is found during a check a suitable buffer zone will be set-up by the ecologist within which no works may occur until the ecologist has monitored the nest, found that the nestlings have fledged and thus the nest has become inactive, and confirmed that the buffer zone can be lifted. For many small bird species a typical buffer zone would be a 5 m radius from the nest.

It is understood that the retaining wall of the River Irwell which forms part of the southern site boundary (and which currently supports a breeding colony of sand martin) may be subject to works as part of a flood defence strategy for the site (pers comm Andrew Bradshaw, 15.04.17). It is recommended that this retaining wall be retained in its current state in any proposed development plans to allow the continued use of this feature by breeding sand martin. Should retention of this feature in its current state not be possible then a sand martin nestbank/wall will need to be created adjacent to the River Irwell to allow the breeding colony of sand martin to continue at the site beyond the construction phase of the development.

Any works which are to be carried out on the retaining wall of the River Irwell which forms part of the southern site boundary, must be carried out outside of the bird nesting seasons (as above), to avoid any adverse impacts on the breeding colony of sand martin utilising this feature.

It is likely that large areas of scrub habitat currently present on site will be removed to facilitate the development and there would not be sufficient room remaining on site to replace every area of these habitats following development. In the first instance, it is recommended that the option of off-site mitigation is explored, potentially immediately adjacent to the eastern boundary of the site, where an area of existing willow scrub could be enhanced and expanded for breeding habitat for willow warbler, for which the site currently supports a notable population at county level. However, if off site mitigation is not an option, it is recommended that a habitat management plan is adopted for the site that will see retained habitats and newly created replacement habitats managed for the benefit of a variety of flora and fauna, including an array of bird species. A matrix of newly created scrub and hedgerow habitats linking into a variety of retained habitats on site would help to cater for the bird assemblage currently present on site once the proposed development is operational. This approach would also prevent habitat fragmentation on site and within the wider landscape, allowing for the local bird gene pool to continue to mix across the site.

Providing connection between areas of vegetation retained/created through wildlife corridors will help to avoid habitat fragmentation for birds and would also benefit other species such as badger that are known to be present in the local area. Where roadways are constructed it is recommended they are lined with



hedgerows and grassland areas sown with wildlife friendly seed mixes to promote a healthy population of invertebrate species that will support a diverse range of birds.

A sympathetic lighting scheme will be required for future development that prevents light spill and thus disturbance on the retained habitat areas.

6.0 Conclusions

- A total of 38 bird species were recorded during the surveys.
- Fourteen notable Red and Amber BoCC list species were observed on site including song thrush, house sparrow, starling, linnet, bullfinch, dunnock, black-headed gull, kestrel, reed bunting & willow warbler.
- Twenty four common and widespread species were recorded within the survey area.
- Recommended mitigation:
 - Off-site mitigation to enhance an area of willow scrub immediately adjacent to the eastern boundary of the site, would benefit the significant (to county level) breeding population of willow warbler currently on-site;
 - However, if off site mitigation is not an option, it is recommended that a habitat management plan is adopted for the site that will see retained habitats and newly created replacement habitats managed for the benefit of a variety of flora and fauna, including an array of bird species.
 - The retaining wall of the River Irwell (forming part of the southern site boundary) which currently supports a breeding colony of sand martin should be retained in its current state. Should this not be possible and works are to be carried out on the retaining wall, a sand martin nesting bank/wall will need to be installed adjacent to the River Irwell to allow the breeding colony of sand martin to continue at the site beyond the construction phase of the development.
 - Works to remove vegetation should be conducted outside of the bird nesting season (i.e. during October to February, inclusive). If this is not possible and vegetation must be removed during the nesting bird season (March to September, inclusive) it will be necessary for a suitably qualified ecologist to conduct a nest check of the vegetation planned for removal;
 - Any future proposed works on the retaining wall of the River Irwell forming part of the southern site boundary should also be conducted outside of the bird nesting season (as above).



- Sympathetic lighting scheme to be designed to prevent light spill onto retained/newly created habitat areas;
- 15 no. 32mm bird boxes to be placed on retained mature trees within the site to enhance the breeding bird potential of the site.
- The implementation of the recommendations will also help to meet the requirements of the National Planning Policy Framework (2012) in that it shows that the habitats and species have been taken into account and measures have been taken to protect and enhance as well as minimise any potentially adverse impacts.



7.0 References

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WYG (December 2016). East Lancs Paper Mill, Bury – Extended Phase 1 Habitat Survey.



Appendices



Appendix A – Figures



Figure 1 – Red-line Boundary Plan

Figure 1: Site Red Line Boundary

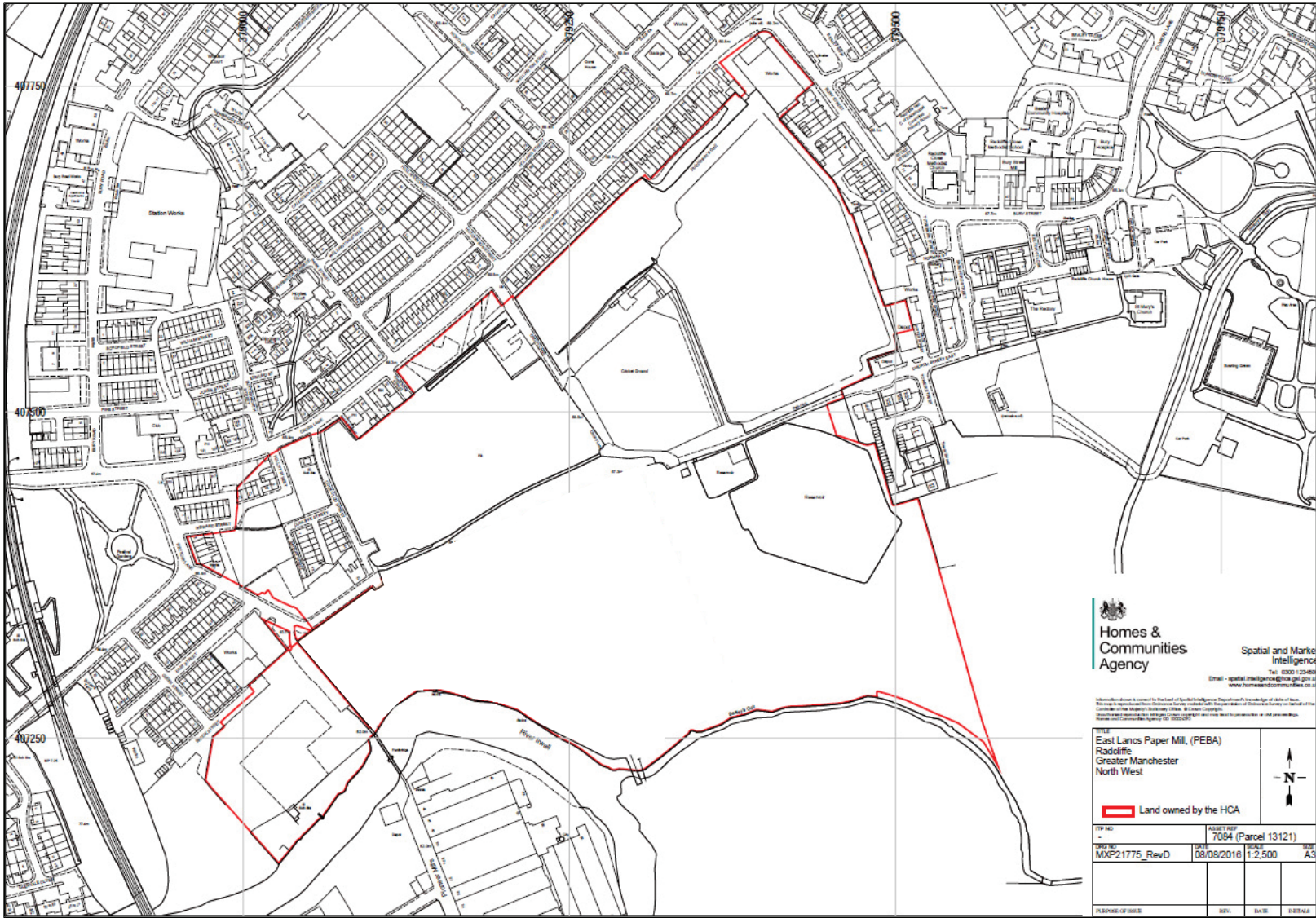
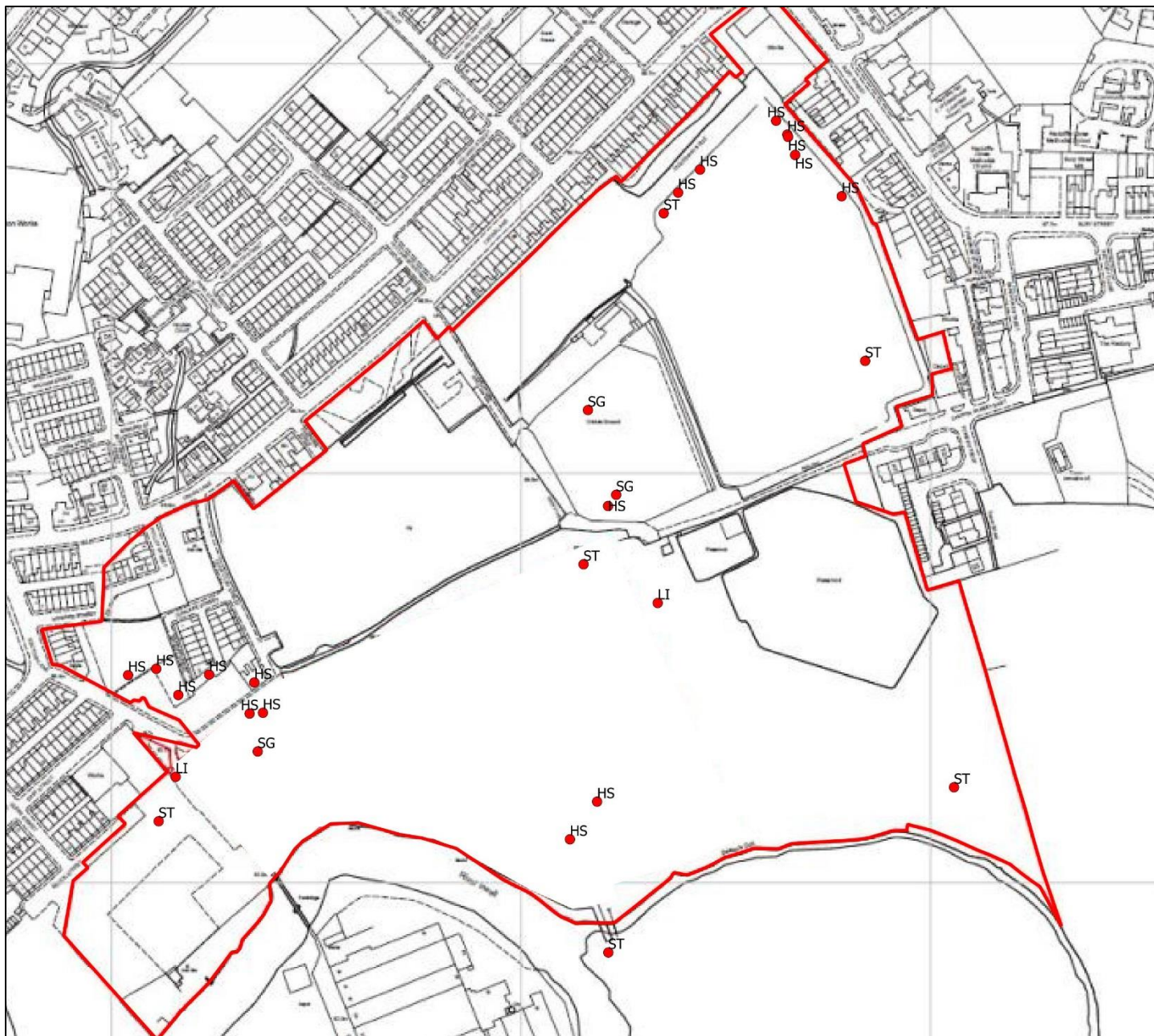




Figure 2 – BoCC Red List Species Location Plan



Legend

- Site boundary
- BoCC Red List Species

HS = House sparrow

LI = Linnet

SG = Starling

ST = Song thrush

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Client: Homes & Communities Agency

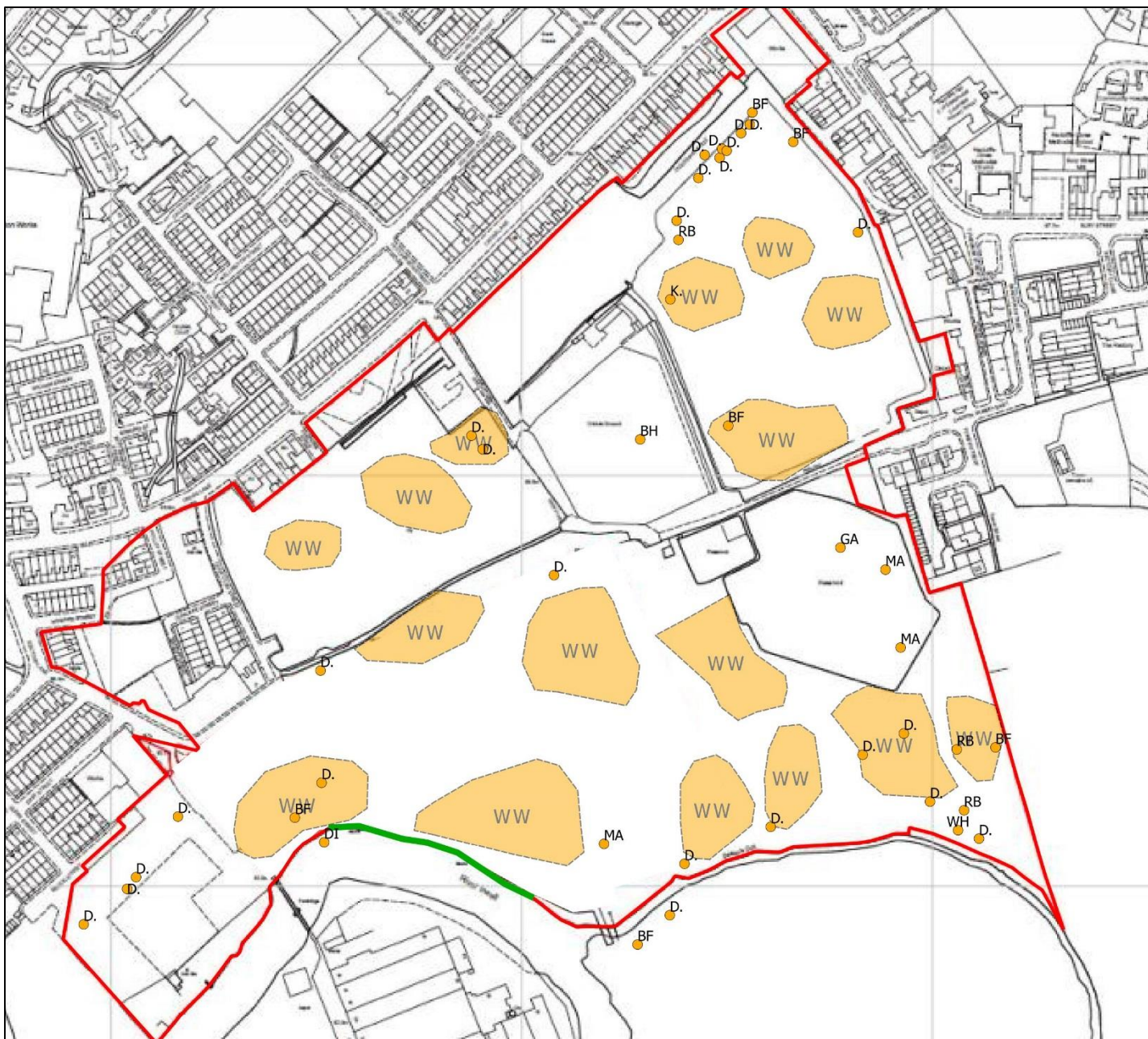
BoCC Red List Species

Drawn by:	Date:	Checked by:	Date:	Approved by:	Date:
MW	18.07.17	LV	26.07.17	RK	17/08/17
Project No:	Office	Type	Drawing no:	Revision	
A090070-193	45	94	2	V1	



Figure 3 – BoCC Amber List Species and Sand Martin Colony Location Plan

(Note: For ease of viewing, due to very high, widespread observations of willow warbler throughout the site, territories have been mapped rather than individual locations of each recording)



Legend

- Site boundary
- BoCC Amber List Species
- WW Indicative willow warbler territory
- Breeding colony of sand martin (BoCC Green List)

BF = Bullfinch
 BH = Black-headed gull
 D. = Dunnoch
 DI = Dipper
 GA = Gadwall
 MA = Mallard
 RB = Reed bunting
 WH = Whitethroat

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BoCC Amber List Species and Sand Martin Colony Location Plan

Drawn by:	Date:	Checked by:	Date:	Approved by:	Date:
MW	18.07.17	LV	26.07.17	RK	17/08/17
Project No:	Office	Type	Drawing no:	Revision	
A090070-193	45	94	3	V1	



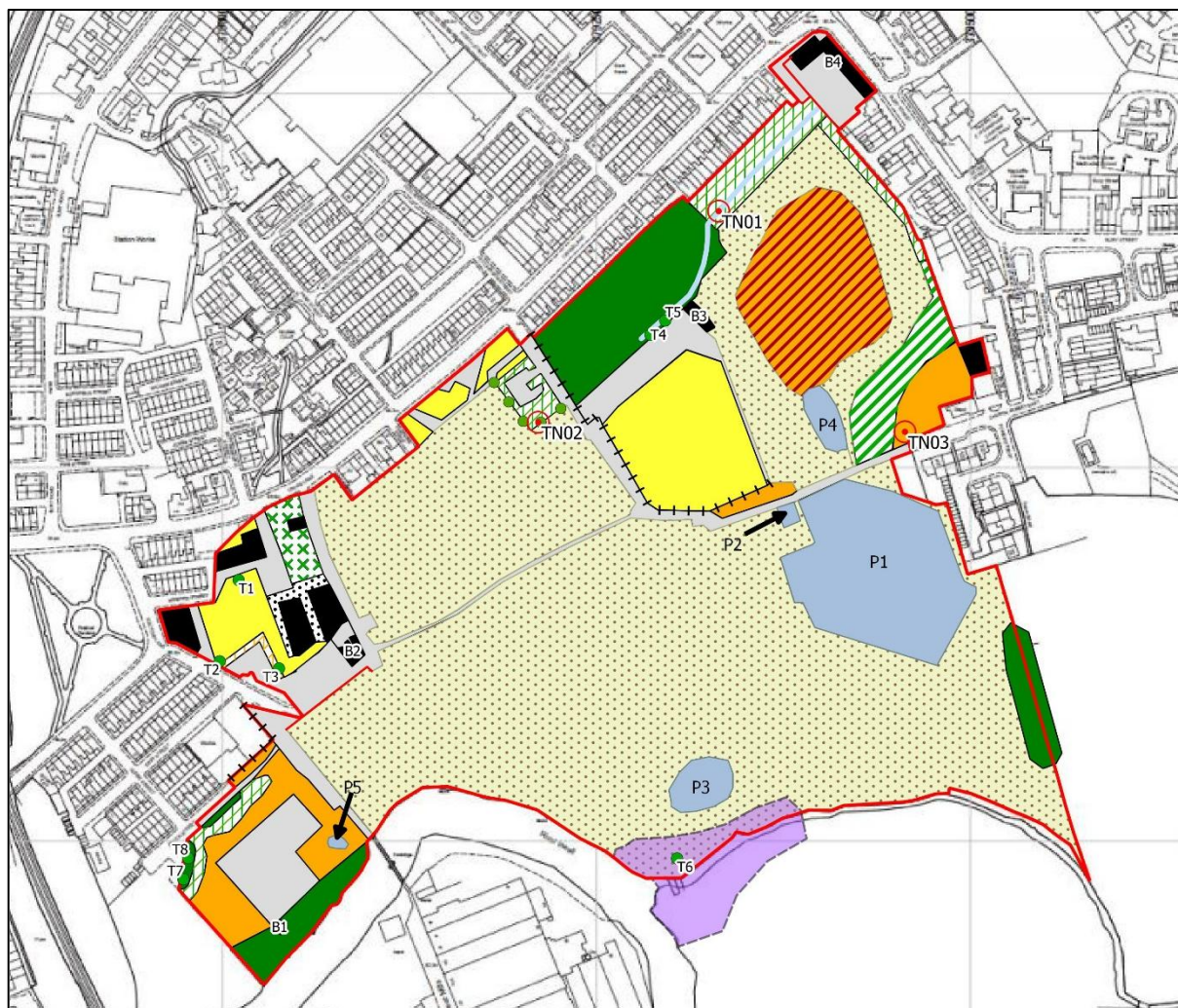
Figure 4 – BTO Species Codes

BTO SPECIES CODES

AC	Arctic Skua	GA	Gadwall	LE	Long-eared Owl	SM	Sand Martin
AE	Arctic Tern	GX	Gannet	LT	Long-tailed Tit	SS	Sanderling
AV	Avocet	GW	Garden Warbler	MG	Magpie	TE	Sandwich Tern
BO	Barn Owl	GY	Garganey	MA	Mallard	VI	Savi's Warbler
BY	Barnacle Goose	GC	Goldcrest	MN	Mandarin Duck	SQ	Scarlet Rosefinch
BA	Bar-tailed Godwit	EA	Golden Eagle	MX	Manx Shearwater	SP	Scaup
BR	Bearded Tit	OL	Golden Oriole	MR	Marsh Harrier	CY	Scottish Crossbill
BS	Berwick's Swan	GF	Golden Pheasant	MT	Marsh Tit	SW	Sedge Warbler
BI	Bittern	GP	Golden Plover	MW	Marsh Warbler	NS	Serin
BK	Black Grouse	GN	Goldeneye	MP	Meadow Pipit	SA	Shag
TY	Black Guillemot	GO	Goldfinch	MU	Mediterranean Gull	SU	Shelduck
BX	Black Redstart	GD	Goosander	ML	Merlin	SX	Shorelark
BJ	Black Tern	GI	Goshawk	M.	Mistle Thrush	SE	Short-eared Owl
B.	Blackbird	GH	Grasshopper Warbler	MO	Montagu's Harrier	SV	Shoveler
BC	Blackcap	GB	Great Black-backed Gull	MH	Moorhen	SK	Siskin
BH	Black-headed Gull	GG	Great Crested Grebe	MS	Mute Swan	S.	Skylark
BN	Black-necked Grebe	ND	Great Northern Diver	N.	Nightingale	SZ	Slavonian Grebe
BW	Black-tailed Godwit	NX	Great Skua	NJ	Nightjar	SN	Snipe
BV	Black-throated Diver	GS	Great Spotted Woodpecker	NH	Nuthatch	SB	Snow Bunting
BT	Blue Tit	GT	Great Tit	OP	Osprey	ST	Song Thrush
BU	Bluethroat	GE	Green Sandpiper	OC	Oystercatcher	SH	Sparrowhawk
BL	Brambling	G.	Green Woodpecker	PX	Peafowl/Peacock	AK	Spotted Crake
BG	Brent Goose	GR	Greenfinch	PE	Peregrine	SF	Spotted Flycatcher
BF	Bullfinch	GK	Greenshank	PH	Pheasant	DR	Spotted Redshank
BZ	Buzzard	H.	Grey Heron	PF	Pied Flycatcher	SG	Starling
CG	Canada Goose	P.	Grey Partridge	PW	Pied Wagtail	SD	Stock Dove
CP	Capercaillie	GV	Grey Plover	PG	Pink-footed Goose	SC	Stonechat
C.	Carrion Crow	GL	Grey Wagtail	PT	Pintail	TN	Stone-curlew
CW	Cetti's Warbler	GJ	Greylag Goose	PO	Pochard	TM	Storm Petrel
CH	Chaffinch	GU	Guillemot	PM	Ptarmigan	SL	Swallow
CC	Chiffchaff	FW	Guineafowl (Helmeted)	PU	Puffin	SI	Swift
CF	Chough	HF	Hawfinch	PS	Purple Sandpiper	TO	Tawny Owl
CL	Cirl Bunting	HH	Hen Harrier	Q.	Quail	T.	Teal
CT	Coal Tit	HG	Herring Gull	RN	Raven	TK	Temminck's Stint
CD	Collared Dove	HY	Hobby	RA	Razorbill	TP	Tree Pipit
CM	Common Gull	HZ	Honey Buzzard	RG	Red Grouse	TS	Tree Sparrow
CS	Common Sandpiper	HC	Hooded Crow	KT	Red Kite	TC	Treecreeper
CX	Common Scoter	HP	Hoopoe	ED	Red-backed Shrike	TU	Tufted Duck
CN	Common Tern	HM	House Martin	RM	Red-breasted Merganser	TT	Turnstone
CO	Coot	HS	House Sparrow	RQ	Red-crested Pochard	TD	Turtle Dove
CA	Cormorant	JD	Jackdaw	FV	Red-footed Falcon	TW	Twite
CB	Corn Bunting	J.	Jay	RL	Red-legged Partridge	WA	Water Rail
CE	Corncrake	K.	Kestrel	NK	Red-necked Phalarope	W.	Wheatear
CI	Crested Tit	KF	Kingfisher	LR	Redpoll (Lesser)	WM	Whimbrel
CR	Crossbill (Common)	KI	Kittiwake	RK	Redshank	WC	Whinchat
CK	Cuckoo	KN	Knot	RT	Redstart	WG	White-fronted Goose
CU	Curlew	LM	Lady Amherst's Pheasant	RH	Red-throated Diver	WH	Whitethroat
DW	Dartford Warbler	LA	Lapland Bunting	RE	Redwing	WS	Whooper Swan
DI	Dipper	L.	Lapwing	RB	Reed Bunting	WN	Wigeon
DO	Dotterel	TL	Leach's Petrel	RW	Reed Warbler	WT	Willow Tit
DN	Dunlin	LB	Lesser Black-backed Gull	RZ	Ring Ouzel	WW	Willow Warbler
D.	Dunnock	LS	Lesser Spotted Woodpecker	RP	Ringed Plover	OD	Wood Sandpiper
EG	Egyptian Goose	LW	Lesser Whitethroat	RI	Ring-necked Parakeet	WO	Wood Warbler
E.	Eider	LI	Linnet	R.	Robin	WK	Woodcock
FP	Feral Pigeon	ET	Little Egret	DV	Rock Dove (not feral)	WL	Woodlark
ZL	Feral/hybrid goose	LG	Little Grebe	RC	Rock Pipit	WP	Woodpigeon
ZF	Feral/hybrid mallard type	LU	Little Gull	RO	Rook	WR	Wren
FF	Fieldfare	LO	Little Owl	RS	Roseate Tern	WY	Wryneck
FC	Firecrest	LP	Little Ringed Plover	RY	Ruddy Duck	YW	Yellow Wagtail
F.	Fulmar	AF	Little Tern	RU	Ruff	Y.	Yellowhammer



Figure 5 – Phase 1 Habitat Plan



Legend

- Site boundary
- Target Note
- Tree
- Tree line
- Running water
- Fence
- Wall
- Broadleaved woodland - semi natural
- Broadleaved woodland - plantation
- Scrub - dense/continuous
- Scrub - scattered
- Neutral grassland - semi-improved
- Marsh/marshy grassland
- Standing water
- Introduced shrub
- Building
- Bare ground
- Hardstanding
- Regenerating willow scrub
- Extensive Giant Hogweed & Japanese knotweed

B – Building reference

P – Pond reference

T – Tree

TN – Target note reference

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Environment

Project: East Lancs. Paper Mill
Client: Homes & Communities Agency

Extended Phase 1 Habitat Map

Drawn by:	Date:	Checked by:	Date:	Approved by:	Date:
MW	06/12/16	AB	12/12/16	RK	14/12/16
Project No:	Office	Type	Drawing no:	Revision	
A090070-193	45	94	2	V1	



Appendix B – Bird Species Recorded

BTO Code	Common Name	Scientific Name
BoCC4 Red List		
HS	House Sparrow	<i>Passer domesticus</i>
LI	Linnet	<i>Carduelis cannabina</i>
S.	Song Thrush	<i>Turdus philomelos</i>
SG	Starling	<i>Sturnus vulgaris</i>
BoCC4 Amber List		
BH	Black-headed Gull	<i>Chroicocephalus ridibundus</i>
BF	Bullfinch	<i>Pyrrhula pyrrhula</i>
DI	Dipper	<i>Cinclus cinclus</i>
D.	Dunnock	<i>Prunella modularis</i>
GA	Gadwall	<i>Anas strepera</i>
K.	Kestrel	<i>Falco tinnunculus</i>
MA	Mallard	<i>Anas platyrhynchos</i>
RB	Reed Bunting	<i>Emberiza schoeniclus</i>
SI	Swift	<i>Apus apus</i>
WH	Whitethroat	<i>Sylvia communis</i>



WW	Willow Warbler	<i>Phylloscopus trochilus</i>
BoCC4 Green List		
B.	Blackbird	<i>Turdus merula</i>
BC	Blackcap	<i>Sylvia atricapilla</i>
BT	Blue Tit	<i>Cyanistes caeruleus</i>
BZ	Buzzard	<i>Buteo buteo</i>
C.	Carrion Crow	<i>Corvus corone</i>
CT	Coal Tit	<i>Parus ater</i>
CO	Coot	<i>Fulica atra</i>
GO	Goldfinch	<i>Carduelis carduelis</i>
GD	Goosander	<i>Mergus merganser</i>
GT	Great Tit	<i>Parus major</i>
GR	Greenfinch	<i>Chloris chloris</i>
H.	Grey Heron	<i>Ardea cinerea</i>
J.	Jay	<i>Garrulus glandarius</i>
LG	Little Grebe	<i>Tachybaptus ruficollis</i>
LT	Long-tailed Tit	<i>Aegithalos caudatus</i>
MG	Magpie	<i>Pica pica</i>
PW	Pied Wagtail	<i>Motacilla alba</i>



R.	Robin	<i>Erithacus rubecula</i>
SM	Sand Martin	<i>Riparia riparia</i>
SL	Swallow	<i>Hirundo rustica</i>
TU	Tufted Duck	<i>Aythya fuligula</i>
WP	Wood Pigeon	<i>Columba palumbus</i>
WR	Wren	<i>Troglodytes troglodytes</i>