



Thornhill Estates

Woodhouse Garden Suburb Extension

BREEDING BIRD REPORT

July 2019

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Rev	Issue Status	Prepared / Date	Approved/Date
-	Issue	GVW / 25.06.19	IH / 05.07.2019

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1.0 NON TECHNICAL SUMMARY

- 1.1 FPCR was commissioned by Thornhill Estates to undertake a series of breeding bird surveys at a site at Woodhouse, Brighouse (central grid reference: SE 152 213), relating to the promotion of the site for residential development as part of the emerging Calderdale Local Plan.
- 1.2 Breeding bird surveys were conducted in July 2018, and April and May 2019.
- 1.3 A total of 40 bird species were recorded within the site during the breeding bird surveys, of which 15 were considered 'notable' species.
- 1.4 The breeding bird assemblage making use of the site was typical of the habitats present, comprising for the most part common and widespread species, and was therefore considered to be of Local importance.
- 1.5 Habitat creation and enhancements resulting from the development would be expected to have beneficial residual impacts on most of the notable species recorded,

2.0 INTRODUCTION

- 2.1 This report has been prepared by FPCR Environment and Design Ltd. on behalf of Thornhill Estates. The report provides the results of breeding bird surveys undertaken at a site at Woodhouse, Brighouse (central grid reference: SE 152 213) (referred to herein as 'the site') and is intended to outline the potential ecological constraints and opportunities relating to the promotion of the site for residential development as part of the emerging Calderdale Local Plan.

Site Location and Context

- 2.2 The study area is 62.8ha in extent and is agricultural in nature, with a mixture of arable and permanent and temporary grassland habitats. Bradley Park Dike forms the sites southern boundary with Bradley Wood located just offsite to the south. A number of residential properties and farm complexes were recorded within the site. The field boundaries on the site are formed predominately by hedgerows with dry stone walls also well represented. The suburb of Woodhouse is present to the north-west of the site with an industrial area along the River Calder corridor to the north. The M62 was located beyond Bradley wood to the south, with the landscape beyond being characterised by Bradley Park golf club. A number of Public Rights of Way (PRoW) cross the site, including the Brighouse Boundary Walk.

Survey Objectives

- 2.3 The aims of this assessment are to identify areas of ornithological interest, make recommendations to minimise the potential impact of development, and where feasible to consider opportunities for additional habitat creation. The objectives of the survey were to:
- Evaluate the conservation importance of breeding bird populations present;
 - Evaluate the importance of breeding bird populations and the anticipated residual impacts of the development; &
 - To identify areas of ornithological interest and make recommendations to minimise the potential impact of the scheme.

Legislation & Status

Legislation

- 2.4 The Wildlife and Countryside Act (WCA) 1981 (as amended) 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;
 - Take or destroy the egg of any wild bird.
- 2.5 Species listed on Schedule 1 of the WCA 1981 (as amended) are specially protected at all times. This extends their protection whereby they are protected against intentional disturbance whilst building or occupying a nest, and against disturbance of dependent young.
- 2.6 Certain species have also been identified as Species of Principal Importance for nature conservation under Section 41 of the Natural Environment and Rural Communities (NERC S.41) Act (2006). The Calderdale Species Audit (2003, amended 2015) also lists bird species regularly breeding or

overwintering in Calderdale which are prioritised locally (Calderdale Priority Species (CPS)) when they are:

Species of National Importance

- 2.7 All those species known to occur in Calderdale that are of national importance are listed. They include species that are:
- Listed by the UK Biodiversity Action Plan as a Priority Species or a Species of Conservation Concern.
 - Listed in a national Red Data Book or, for birds, on the Birds of Conservation Concern 'Red' or 'Amber' lists (RSPB, 2002).
 - Not listed in a Red Data Book but authoritatively recognized as of national importance.

Species of Regional Importance

- 2.8 Species occurring in Calderdale that are regarded to be of regional importance are listed. Little quantitative information is available about species of regional importance. The Yorkshire and Humberside Biodiversity Forum produced a regional audit of species in 1999 and 2003 (Yorkshire and the Humber Biodiversity Audit: Species and Habitats of Regional Importance). Whilst this has been updated in 2008, it does not include West and South Yorkshire (Yorkshire and Humber Regional Biodiversity Strategy January 2009).

Species of Local Importance

- 2.9 Those species that do not meet the national or regional criteria have been assessed according to the following criteria:
- Rare: restricted to 3 sites or less.
 - Declining: believed to be declining to the extent that their survival in Calderdale is threatened.
 - Endangered: confined to sites and habitats particularly threatened by development or land management.

Status

- 2.10 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 UK¹:
- Red list (high conservation concern) species are those that are globally threatened according to IUCN criteria; those whose population has declined rapidly (50% or more) in recent years; and those that have declined historically and not shown a substantial recent recovery.
 - Amber list (medium conservation concern) species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately (between 25% and 49%) in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations.
 - Green list (low conservation concern) or non-listed species fulfil none of the above criteria.

¹ 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, pp708-746.

3.0 METHODOLOGY

Desk Study

- 3.1 To support the field survey and further compile existing baseline information relevant to the site, ecological information was sought from third parties, including records of protected or notable species and sites designated for nature conservation interest. West Yorkshire Ecology Service (WYES) was contacted.

Online sources of ecological data were also sought including:

- Multi Agency Geographic Information for the Countryside (MAGIC) website (www.magic.gov.uk);

- 3.2 The search area of interest varied depending upon the likely significance and zone of influence of the data requested, as follows:

- A minimum of a 10km radius around the site was searched for sites with an international statutory designation; Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar sites;
- A minimum of a 2km radius around the site for sites of national/regional importance with a statutory designation of Site of Special Scientific Importance (SSSI) or National Nature Reserve (NNR);
- Up to a 1km radius around the site for sites of local importance with statutory designation of Local Nature Reserve (LNR), or non-statutory designation of Site of Importance for Nature Conservation (SINC) or the equivalent Local Wildlife Site (LWS); and
- 1km search area for records of notable / protected species (i.e. including Species of Principal Importance under S41 of the Natural Environment and Rural Communities Act (NERC) 2006 and local biodiversity action plan species.

Field Survey

- 3.1 The survey methodology employed was broadly based on that of territory mapping² as 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.
- 3.2 The criteria used in the assessment of breeding birds has been adapted from the standard criteria proposed by the European Ornithological Atlas Committee³ (EOAC) and are grouped into three categories: possible breeder e.g. birds observed in suitable habitat or singing male recorded; probable breeder e.g. pair in suitable habitat, territory defended, agitated behaviour or nest building and confirmed breeder e.g. recently fledged young observed, adult birds carrying food for young. Birds that were considered to be not using the site for breeding were categorised as 'non-breeders' e.g. flying over the site, migrant, habitat not suitable. Breeding evidence used in this report follows EOAC guidelines (1979), as shown in Appendix A.
- 3.3 To provide a reasonable level of accuracy for determining the population status of the breeding birds on the site, three surveys were undertaken between 0645 and 1130 during June 2018 and

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

³ EOAC, 1979. Categories of Breeding Bird Evidence. European Ornithological Atlas Committee

April and May 2019. A route was mapped out prior to the surveys being undertaken, paying particular attention to any linear features, such as hedgerows and tree lines, and natural features such as areas of scrub and woodland. Bird surveys were not undertaken in unfavourable conditions, such as heavy rain or strong wind, which may negatively affect the results. Table 1 provides details of the survey dates and weather conditions.

Table 1: Breeding Bird Survey Dates & Conditions

Survey	Date	Cloud	Rain	Wind	Temp	Visibility
1	29.06.18	0%	0	S2	16 ⁰	Excellent
2	11.04.19	5%	0	E2	10 ⁰	Excellent
3	14.05.19	0%	0	0	10 ⁰	Excellent

Species & Assemblage Assessment

- 3.4 The Chartered Institute of Ecology and Environmental Management (CIEEM) guidance on ecological impact assessment assesses nature conservation importance within a geographical context⁴. 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 may be required to increase or decrease the allocation of importance, based upon local knowledge.
- 3.5 The most recent county annual bird report (Yorkshire Bird Report 2015) was consulted to inform the assessment. The abundance of species referred to by these reports is classified by the following criteria:
- Vagrant – Up to ten records;
 - Rare – 0-10 individuals each year in the last ten years;
 - Scarce – 11-100 individuals each year in the last ten years;
 - Uncommon – 101-1000 individuals each year in the last ten years;
 - Fairly common – More than 1000 records per year;
 - Common – More than 10,000 records per year;
 - Abundant – More than 50,000 records per year.

Table 2: Evaluation Criteria

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

⁴ http://www.cieem.net/data/files/Publications/EcIA_Guidelines_Terrestrial_Freshwater_and_Coastal 2018

Nature Conservation Value	Examples of Selection Criteria
	Rare breeding species (<300 breeding pairs in the UK).
Regional	Species listed as being of principal importance under NERC S.41 which are not covered above, and which regularly occurs 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 & which regularly occur in regionally important numbers.
County	Species listed as being of principal importance under NERC S.41 which are not covered above and which regularly occurs 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 are listed as being of principal importance under S41 of the NERC Act. A site designated for its county important assemblage of birds (e.g. a SINC Site). Species on the BoCC Red List & 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 species listed as being of principal importance under NERC S.41 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

- 3.6 Sites of Importance for Nature Conservation (SINCs) are recognised by central government as an important tool in promoting sustainable development and protecting biodiversity with guidance aimed at identifying sensitive or important areas for nature conservation. In West Yorkshire they are termed Sites of Ecological or Geological Importance' (SEGI).

4.0 RESULTS AND EVALUATION

Desk Study

- 4.1 A summary of relevant ecological information is provided below; original data provided by the consultees has not been included in this report.

Statutory Designated Sites

- 4.2 No designated sites of international nature conservation importance were located within 10km of the site.
- 4.3 No designated sites of national/regional nature conservation importance were located within 2km of the site.

Non-Statutory Designated Sites

- 4.4 In West Yorkshire 1st tier non-statutory designated sites of County importance are termed SEGI. The county is currently in the process of merging 2nd and 3rd tier sites into a single Local Wildlife Site (LWS) designation.
- 4.5 Whilst not necessarily protected in law, non-statutory designated sites do generally receive policy protection (as "Locally Designated Sites"), as reflected in the National Planning Policy Framework (NPPF 2018). NPPF suggests that Local Sites can have a fundamental role to play in meeting overall national biodiversity targets and that appropriate weight should be attached to designated sites when making planning decisions.

- 4.6 Three non-statutory designated sites were located within the 1km search area. Bradley Park Woods LWS/SEGI is located 360m from the site boundary and has connectivity to the Site through the PRoW which extends from the south of the site. This woodland would support the expected range of woodland birds. The Calder and Hebble Navigation Canal SEGI/LWS, which is located at a minimum distance of 960m N of the study area and featured a wide range of diverse plant communities. Clifton Lagoon LWS/SEGI is designated for its mosaic of habitats and is publicly accessible via a number of permissive footpaths.
- 4.7 The Calderdale and Kirklees Wildlife Habitat Network provides a landscape scale approach to the creation, protection, enhancement and management of networks of biodiversity and green infrastructure. Two fields within the site boundary were mapped under the Wildlife Habitat Network. Bradley Wood along the southern boundary of the site and three off-site fields to the north were also mapped as part of the network.

Protected and Priority Species

- 4.8 The desk study returned no records of notable bird species from within the search area.

Field Survey

- 4.9 A total of 40 bird species were recorded within the survey area (Appendix A). Of these, fifteen appear on one or more of the following:
- Species of Principal Importance - Section 41 of the NERC Act 2006; seven species
 - BoCC Red or Amber lists; eight Red species; four Amber species
 - Calderdale Priority Species: fourteen species
- 4.10 The distribution of the fifteen notable species is illustrated on Figure 1, and Table 3 provides a summary of the species recorded.
- 4.11 Of the 40 species recorded, fourteen were confirmed as breeding: woodpigeon *Columba palumbus*, great spotted woodpecker *Dendrocopos major*, magpie *Pica pica*, jackdaw *Coloeus monedula*, carrion crow *Corvus corone*, blue tit *Cyanistes caeruleus*, great tit *Parus major*, blackcap *Sylvia atricapilla*, nuthatch *Sitta europaea*, treecreeper *Certhia familiaris*, blackbird *Turdus merula*, dunnoek *Prunella modularis*, robin *Erithacus rubecula* and house sparrow *Passer domesticus*.
- 4.12 Twelve species were considered probable breeders: stock dove *Columbus oenas*, coal tit *Periparus ater*, swallow *Hirundo rustica*, long-tailed tit *Aegithalos caudatus*, willow warbler *Phylloscopus trochiloides*, chiffchaff *Phylloscopus collybita*, wren *Troglodytes troglodytes*, song thrush *Turdus philomelos*, mistle thrush *Turdus viscivorus*, chaffinch *Fringilla coelebs*, linnet *Linaria cannabina* and goldfinch *Carduelis carduelis*.
- 4.13 All the other species (10) were considered possible breeders, except for swift *Apus apus*, sand martin *Riparia riparia*, yellow wagtail *Motacilla flava* and grey wagtail *Motacilla cinerea*, which were visiting or foraging over the site.

Table 3: Protected, Species of Principal Importance, BoCC Red and Amber Listed and CPS Bird Species Recorded during Breeding Bird Surveys 2018-19, and their Recent Status within Yorkshire

Species	Legal/ Conservation status	Peak count / No. of surveys (of 3) recorded	Recent Yorkshire Status
Buzzard <i>Buteo buteo</i>	Green list ; CPS	1/1	Increasing resident and scarce passage migrant and winter visitor
Stock dove <i>Columba oenas</i>	Amber list; CPS	5/3	Fairly common to common resident breeder
Swift <i>Apus apus</i>	Amber list	2/2	Common breeding summer visitor and passage migrant
Sand martin <i>Riparia riparia</i>	Green list ; CPS	5/1	Fairly common breeding summer visitor and passage migrant
Swallow <i>Hirundo rustica</i>	Green list; CPS	15/2	Common breeding summer visitor and passage migrant
Willow warbler <i>Phylloscopus trochilus</i>	Amber list; CPS	2/1	Common to abundant breeding summer visitor and passage migrant
Starling <i>Sturnus vulgaris</i>	SPI; Red list; CPS	6/2	Abundant but decreasing resident, passage migrant and winter visitor
Song thrush <i>Turdus philomelos</i>	SPI; Red list; CPS	3/2	Common resident breeder, passage migrant, winter visitor
Mistle thrush <i>Turdus viscivorus</i>	Red list; CPS	4/2	Fairly common resident and scarce passage migrant
Dunnock <i>Prunella modularis</i>	SPI; Amber list; CPS	10/3	Common resident and passage migrant
House sparrow <i>Passer domesticus</i>	SPI; Red list; CPS	47/3	Abundant resident but has decreased
Tree sparrow <i>Passer montanus</i>	SPI; Red list; CPS	1/1	Uncommon resident, very recent population recovery
Grey wagtail <i>Motacilla cinerea</i>	Red list; CPS	1/1	Uncommon resident in north and west; scarce passage migrant
Yellow wagtail <i>Motacilla flava</i>	SPI; Red list; CPS	1/1	Uncommon decreasing breeding summer visitor and passage migrant
Linnet <i>Linaria cannabina</i>	SPI; Red list; CPS	8/3	Common resident and passage migrant

Habitat Description

- 4.14 Most of the site was under arable production, the majority of which, at the time of survey, was wheat. The field margins were generally very narrow, consisting of a 0.5-1m wide band of poor semi-improved grassland along the margins of the hedgerows. Hedgerows were the most common field boundary, with some dry stone walls also present. The hedgerows generally displayed low species diversity, in terms of woody species present. Five fields of improved grassland were present with a large single field present to the north-east and four smaller fields located to the south-west. A single field of semi-improved neutral grassland was noted to the north-east of the site.
- 4.15 Semi-natural broadleaved woodland was present to the west and south of the site boundary (Bradley Wood). Patches of brambles were scattered throughout.
- 4.16 The following provides a summary of the breeding bird assemblage recorded within these different areas and habitat types:

- 4.17 The open areas (cereal and grassland fields) of the site supported few species, with skylark being a notable absentee. Corvids, woodpigeons, goldfinches and linnets were found. Swallows, sand martins and swifts overflowed the fields hunting insects. A lone yellow wagtail in May was presumably a migrant.
- 4.18 Hedgerows supported house sparrow, particularly near residential areas. Little owl, whitethroat, robin, goldfinch and dunnock were also present. A single tree sparrow in May was perhaps prospecting for a nest site. House sparrow and dunnocks frequented the bramble patches.
- 4.19 The woodlands and mature trees supported buzzard, stock dove, great spotted woodpecker, chiffchaff, willow warbler, blackcap, blue, great, coal and long-tailed tits, mistle thrush, song thrush, blackbird, chaffinch and wren.

5.0 DISCUSSION AND EVALUATION OF IMPACTS

Bird Assemblage Value

- 5.1 The species recorded on site are largely typical of the main habitats available on site, and are particularly characterised by notable species of hedgerows (e.g. dunnock); woodland (stock dove, willow warbler, mistle thrush); arable farmland (swallow, linnet) and the urban fringe (song thrush, dunnock, house sparrow and starling).
- 5.2 Most notable species recorded were uncommon to common residents or migrant species within the county.
- 5.3 Tree sparrow was noted once, perhaps a wanderer from the known colony near Thornhills. The loss of the large arable fields would not affect this species unduly, as it is reliant on seeds and insects in unimproved/semi-improved grassland and prefers to forage close to hedgerows. The provision of a number of tree sparrow nest boxes in suitable locations could increase the number of nesting opportunities for tree sparrow locally.
- 5.4 The retention of the woodland, scrub, hedgerows and species rich grassland as well as the creation of new species rich habitat within the site would, in time, have a positive impact on the population of trees sparrows.
- 5.5 Overall a small number of SPI farmland bird species were recorded but most were considered not to be of county significance, when compared to records in the wider county. Therefore the site is considered to support a breeding bird assemblage of no more than **Local** nature conservation value.
- 5.6 Hedgerows and woodland blocks supported an assemblage of common and widespread generalist species in addition to some woodland bird species. As with their associated arable habitats, these features are common in the landscape and were therefore considered to be of no more than **Local** nature conservation value for the generalist species recorded.

Local Wildlife Site Assessment

- 5.7 The site did not meet any of the criteria for West Yorkshire Local Wildlife Site selection (B1-B7)⁵, specifically B3, B4, B5 and B6 which refer to significant or notable breeding bird populations.

⁵ West Yorkshire Local Wildlife Site Selection Criteria (West Yorkshire Local Sites Partnership 2016) accessed at <https://www.wyjs.org-media-1425-240216-wy-local-sites-selection-criteria-21-01-2016-rm.pdf>

Potential Impacts

- 5.8 The impact on breeding bird species arising from the potential effects of development is based upon an understanding of each species' ecological requirements, the type of development, number of birds recorded on site, their nature conservation criteria based on legislation (Schedule 1 of the Wildlife & Countryside Act (1981) as amended; S41 NERC Act Species of Principal Importance), current guidance (Red and Amber listed Birds of Conservation Concern 3 (2015); their local status according to the latest available Yorkshire Bird Reports and, to some extent, professional judgement.
- 5.9 The species recorded on site that are arguably the most vulnerable to impacts are the 'notable' species that appear on one or more of the following:
- Species of Principal Importance listed under S41 of the NERC (2006) Act;
 - Red and Amber listed Birds of Conservation Concern (2015); and
 - Calderdale Priority Species
- 5.10 The habitat requirements, species account, and nature conservation value of these species are summarised in Table 4. In addition, residual impacts arising from the proposed development in terms of habitat loss / change have been assessed against the development proposals.

Table 4: Habitat Requirements, Species Account, Nature Conservation Value and Impact Assessment of Notable species recorded during Breeding Bird Surveys in 2018-2019 at Woodhouse.

Species	Habitat Requirements [†]	Species Account	Nature Conservation Value [†]	Suggested Mitigation/ Compensation/Enhancements	Residual Impact ^{††}
Buzzard	Mixed farmland with hedgerows, woods and scrub is favoured, with high densities of prey species such as rabbits, rodents and small birds. Earthworms are also taken.	One hunting in June	Local	Retention of woodland and some open spaces	Negligible
Stock dove	Favours parkland, woodland edge and wooded farmland.	A few in the fields, probably breeding in the adjacent woods or mature trees on site	Local	Provision of nest –boxes, which this species takes readily to, will enhance its prospects.	Beneficial
Swift	Closely associated with villages and towns, particularly where nest sites are available. Reliant on large insect prey.	One or two flying over; may nest in adjacent residential areas?	Local	Provision of nest –boxes and bricks in the residential development will enhance its prospects.	Beneficial
Swallow	Ubiquitous summer visitor, especially in farmland and a common farm outbuilding breeder	Probably nest in older buildings on site. 15 seen in June 2018.	Local	Enhancement of the open habitats by wildflower planting and consequent increased insect activity would benefit this species	Negligible
Sand martin	Widespread and numerous, particularly over water, and close to suitable nest-sites	A few in June with swallows	Local	Ponds or wet areas would be beneficial to this species.	Beneficial

Species	Habitat Requirements [†]	Species Account	Nature Conservation Value [†]	Suggested Mitigation/ Compensation/Enhancements	Residual Impact ^{††}
Willow warbler	Woodland specialist; Breed in virtually all wooded habitats, favouring scrub and young woodland.	Only a pair in June; more could be expected.	Local	Planting of alder, birch and willow scrub along the riparian corridor would provide enhanced breeding and foraging opportunities.	Beneficial
Starling	Farmland specialist. During breeding season will concentrate where suitable holes are available, either naturally or in apertures of buildings. Invertebrate food fed to young. Forages mainly on the ground in open areas of short grass or sparse vegetation, e.g. cereal stubble, farmyards.	low numbers noted, may nest in Woodhouse itself.	Local	The mature trees which may be utilised by starlings are recommended for retention. The provision of starling nest boxes would also encourage breeding on site.	Beneficial
Song thrush	Thrushes can exist anywhere where trees or bushes accompany open grassland or patches of dead leaves supporting ample invertebrates. Will readily take to hedgerows, railway embankments and small gardens.	Two or three pairs probably nesting on site.	Local	Further woodland and hedgerow planting as part of the green infrastructure would provide additional habitat.	Beneficial
Mistle thrush	Open woodland, woodland edge, well-wooded farmland. Widespread but occupy large territories and nest at low density	Favour the mature trees and woodland on site.	Local	The inclusion of winter berry and fruit bearing trees and shrub species such as hawthorn, crab apple and rowan would provide additional suitable foraging habitat for this thrush, as adults are sedentary and require an overwinter food supply.	Beneficial

Species	Habitat Requirements [†]	Species Account	Nature Conservation Value [†]	Suggested Mitigation/ Compensation/Enhancements	Residual Impact ^{††}
Duncock	Commonly utilises a wide variety of scrub grown situations. Has adapted to field hedgerows, farms, railway embankments, parks, gardens and vacant urban land.	Reasonably common in the rougher areas (brambles, etc) on site.	Local	Retention of hedgerows, new hedgerow planting, the creation of gardens and further woodland planting will continue to provide sufficient foraging opportunities to this species. Dunnocks will also readily inhabit residential areas, particularly once established.	Beneficial
House sparrow	Often associated with man, will avoid closed or dense vegetation, and except for seasonal foraging in corn fields and other crops, will usually avoid open terrain lacking in shrubs, trees, and other cover.	Many close to the urban fringe, nesting on taller hedgerows and foraging in the cereal fields.	Local	House sparrows will readily habituate to new residential areas. The creation of new habitats combined with new residential gardens and buildings will increase foraging opportunities in the long-term.	Beneficial
Tree sparrow	Farmland specialist; Colonial species which nest in tree cavities, farm buildings or dense vegetation. Found in areas of mixed or arable farmland or waterside vegetation. Adults feed mainly on seeds whilst young chicks are fed on insects.	Just one seen in May, possibly colonizing this site.	Local	A preference for mixed farmland indicates that the development would have a negligible effect on the species. Installation of groups of nest boxes on mature trees or on poles adjacent to suitable cover would increase nesting opportunities.	Beneficial
Linnet	Nests in areas of dense scrub or hedgerows. Feeds on small to medium sized seeds. Particularly dependent on weeds of open country and waste ground.	A few probably breeding on site, in hedgerows	Local	Further planting of scrub and hedgerows would be beneficial for this species, and retention and enhancement of the semi-improved grassland would provide additional foraging opportunities.	Beneficial

† Based upon criteria set out in Table 1 and professional judgment.

†† Assumes that any suggested or proposed mitigation, compensation or enhancements are undertaken in full

Impact Assessment of Breeding Birds

5.11 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

5.12 Future proposals will likely result in the loss of most of the improved grassland and arable fields from the site. The few bird species supported by this habitat are widespread both locally and also within a wider context. Given the predominance of arable habitats within the wider landscape, the populations of notable farmland bird species and of more common and widespread species recorded using on site arable habitats are likely to form part of an assemblage that also occupies habitats within the surrounding landscape. Onsite habitats are therefore likely to form part of a wider network of foraging habitats that will remain unaffected by proposals and the impacts upon the majority of the assemblage recorded is likely to be negligible.

5.13 The woodlands, mature trees, hedgerows, acid grassland and semi-improved neutral grassland have been recommended for retention, with appropriate buffers and new habitat creation to enhance their value.

5.14 Species such as stock dove, dunnock, mistle thrush, starling, tree sparrow and house sparrow are all expected to either be unaffected or benefit from the proposals, with the creation of open space of particular importance for foraging starlings. In addition, swift, dunnock, starling, song and mistle thrush, tree sparrow and house sparrow show varying degrees of habituation to residential areas, particularly as gardens mature, and an ability to thrive in urban environments.

Disturbance Impacts

5.15 Construction operations have the potential to disturb birds using the site for roosting, foraging, and breeding. Operations likely to disturb breeding birds include noise from vegetation clearance, initial ground works and some construction activities, such as piling, which are of low frequency but of high amplitude. Active, high level, infrequent disturbance causes most birds to be displaced for short periods⁶. 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 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 site for breeding.

Mitigation

5.16 It is considered that the retention of the semi-natural habitats listed above would avoid the vast majority of impacts to breeding birds and as such any additional mitigation measures related to birds and development largely involve avoiding disturbance to breeding birds.

⁶ Hockin, D., Ounsted, M., Gorman, M., Hill, D., Keller, V., and Barker, M. 1992 Examination of the effects of disturbance on birds with reference to the role of environmental impact assessments. *Journal of Environmental Management*, 36, 253–286

- 5.17 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. A suitably qualified ecologist would supervise this.
- 5.18 These measures will ensure the impact of disturbance to any nesting birds, is reduced to Negligible.
- 5.19 Buffer planting with native species, along with the retention and enhancement where possible of existing vegetation, will provide further compensation for any foraging or loafing habitat loss, provide connectivity with the wider landscape and support conservation and biodiversity enhancement. The creation of wetlands would create habitat currently not available on-site and is likely to attract new species, such as wildfowl. The margins of these ponds should be planted with reed to provide cover for ducks and passerines during the winter months.

6.0 CONCLUSION

- 6.1 The results of the bird surveys show that the site supports a species assemblage consisting, in the most part, of widespread and relatively common species in West Yorkshire. However, some of these are notable species, which should be conserved and protected in line with national and local planning guidelines.
- 6.2 Overall, recommended habitat creation and management, and enhancements such as provision of nest-boxes are expected to have beneficial residual impacts for most of the notable species recorded, as assessed in Table 4.

Appendix A – Woodhouse Breeding Bird Survey Results 2018-2019

Species: British Common Name	Species: Latin name	June 2018	April 2019	May 2019	Conservation Status & Protection	Breeding status ⁷
Pheasant	<i>Phasianus colchicus</i>			1	Not listed	H
Buzzard	<i>Buteo buteo</i>	1			Green list; CPS	H
Sparrowhawk	<i>Accipiter nisus</i>		1		Green list	H
Stock dove	<i>Columba oenas</i>	3	2	5	Amber list; CPS	P
Woodpigeon	<i>Columba palumbus</i>	18	18	15	Green list	FL
Collared dove	<i>Streptopelia decaocto</i>		1	2	Green list	H
Little owl	<i>Athene noctua</i>		1		Not listed	H
Swift	<i>Apus apus</i>	1		2	Amber list	F
Great spotted woodpecker	<i>Dendrocopos major</i>		1	2	Green list	FF
Magpie	<i>Pica pica</i>	14	30	11	Green list	NE
Jay	<i>Garrulus glandarius</i>	1	1	1	Green list	H
Jackdaw	<i>Coloeus monedula</i>	4	10	4	Green list	FL
Carrion crow	<i>Corvus corone</i>	25	17	6	Green list	NE
Blue tit	<i>Cyanistes caeruleus</i>	5	18	5	Green list	FL
Great tit	<i>Parus major</i>	7	10	8	Green list	FL
Coal tit	<i>Periparus ater</i>		4		Green list	P
Sand martin	<i>Riparia riparia</i>	5			Green list;CPS	F
Swallow	<i>Hirundo rustica</i>	15		4	Green list; CPS	P
Long-tailed tit	<i>Aegithalos caudatus</i>		4	2	Green list	P
Chiffchaff	<i>Phylloscopus collybita</i>		2	2	Green list	P
Willow warbler	<i>Phylloscopus trochilus</i>	2			Amber list; CPS	P

⁷European Ornithological Atlas Committee, 1979. *Categories of Breeding Bird Evidence*. European Ornithological Atlas Committee.

Species: British Common Name	Species: Latin name	June 2018	April 2019	May 2019	Conservation Status & Protection	Breeding status ⁷
Blackcap	<i>Sylvia atricapilla</i>		2	7	Green list	FF
Whitethroat	<i>Sylvia communis</i>	1		2	Green list	H
Nuthatch	<i>Sitta europaea</i>			1	Green list	FF
Treecreeper	<i>Certhia familiaris</i>			1	Green list	FF
Wren	<i>Troglodytes troglodytes</i>	2	10	1	Green list	P
Starling	<i>Sturnus vulgaris</i>		6	2	Red list NERC S.41; CPS	H
Blackbird	<i>Turdus merula</i>	12	22	16	Green list	FF
Song thrush	<i>Turdus philomelos</i>		3	2	Red list NERC S.41; CPS	P
Mistle thrush	<i>Turdus viscivorus</i>	4	2		Red list; CPS	P
Robin	<i>Erithacus rubecula</i>	4	5	11	Green list	FL
Dunnoek	<i>Prunella modularis</i>	3	10	8	Amber list NERC S.41; CPS	FL
House sparrow	<i>Passer domesticus</i>	47	5	20	Red list NERC S.41 CPS	FF
Tree sparrow	<i>Passer montanus</i>			1	Red list NERC S.41; CPS	H
Grey wagtail	<i>Motacilla cinerea</i>	1			Red list; CPS	U
Pied wagtail	<i>Motacilla alba</i>		2		Green list	H
Yellow wagtail	<i>Motacilla flava</i>			1	Red list; NERC S 41; CPS	M
Chaffinch	<i>Fringilla coelebs</i>	2	3	3	Green list	P
Linnet	<i>Linaria cannabina</i>	8	4	2	Red list NERC S.41 CPS	P
Goldfinch	<i>Carduelis carduelis</i>	5	4	7	Green list	P
Total No. Species = 40		24	28	31		

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

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

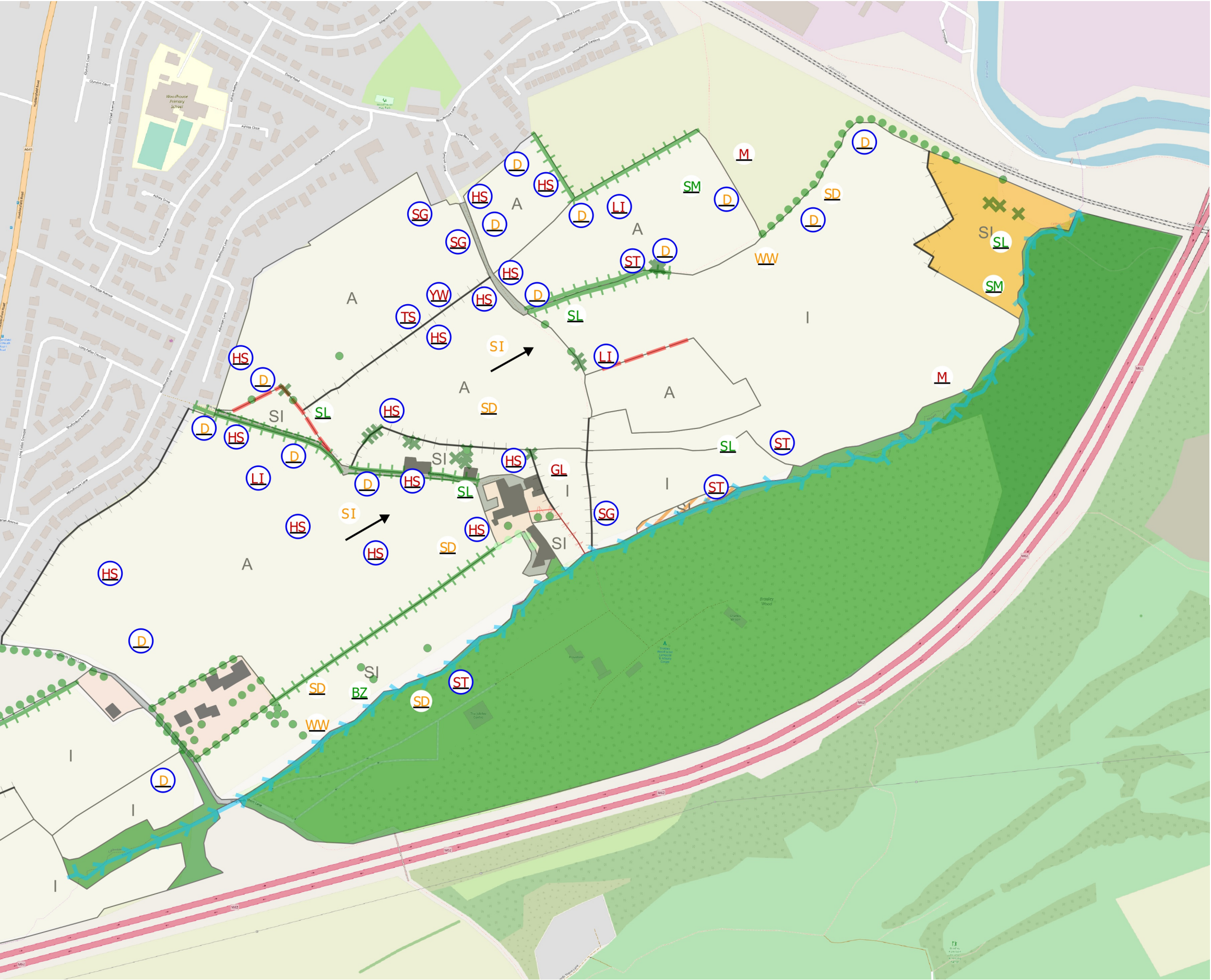
Non-breeder

F – flying over

M – migrant

U – summering non-breeder

UH – observed in unsuitable nesting habitat



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BoCC Red-Listed Species

- GL Grey Wagtail
- HS House Sparrow
- LI Linnet
- M Mistle Thrush
- ST Song Thrush
- SG Starling
- TS Tree Sparrow
- YW Yellow Wagtail

BoCC Amber Listed Species


- D Dunnock
- SD Stock Dove
- SI Swift
- WW Willow Warbler

BoCC Green List Species

- BZ Buzzard
- SM Sand Martin
- SL Swallow

Site Boundary

- Fly over only
- NERC Species of Principal Importance
- Schedule 1 Species
- CPS Species (underlined)



client
ID Planning

project
Woodhouse Garden Suburb
Extension, Calderdale

drawing title
**BREEDING BIRD SURVEY RESULTS -
LOCATIONS OF NOTABLE SPECIES**

scale A3
1:1

drawn
JS

issue
5/7/2019

drawing / figure number
Figure 1

rev
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